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MARINE CORPS RECRUIT DEPOT/EASTERN RECRUITING REGION
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PARRIS ISLAND, SOUTH CAROLINA 29905-9001

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30 OCT 1995

DEPOT ORDER 6280.2A

From: Commanding General
To: Distribution List

Subj: HAZARDOUS WASTE MANAGEMENT FOR MCRD, PARRIS ISLAND

Ref: (a) 40 CFR (Code of Federal Regulations, Sections 261-265)

Encl: (1) Hazardous Waste Management Plan for Marine Corps Recruit
Depot, Parris Island, South Carolina
(SC ID No. 6170 022 762)

1. Purpose. To establish policies, procedures, and responsibilities pertaining to the generation, storage, disposal, and management of hazardous wastes and material by Depot units and tenant activities.
2. Cancellation. DepO 6280.2.
3. Background. The reference requires all Federal activities to prepare a Hazardous Waste Management Plan. The enclosure is the approved plan for the Marine Corps Recruit Depot, Parris Island, South Carolina.
4. Action. Addressees will review the enclosure and ensure that the provisions of the enclosure are followed to include reporting, generation, storage, disposal, and management policies and procedures of hazardous waste.


J. G. KISPERT
Chief of Staff

DISTRIBUTION: C and D

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HAZARDOUS WASTE MANAGEMENT PLAN

FOR

MARINE CORPS RECRUIT DEPOT

PARRIS ISLAND, SOUTH CAROLINA

(SC ID No. 6170 022 762)

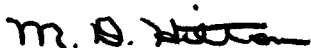
AUGUST 1995

NATURAL RESOURCES AND ENVIRONMENTAL AFFAIRS OFFICE

MARINE CORPS RECRUIT DEPOT

PARRIS ISLAND, SOUTH CAROLINA

Approved by:



M. D. HILTON
Colonel, USMC
By direction of the
Commanding General

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1.0 INTRODUCTION

1.1 APPLICABILITY

The Resource Conservation and Recovery Act (RCRA) authorized the Environmental Protection Agency (EPA) to implement regulations for the control of hazardous waste (HW) from the point of generation through final disposal to assure that HW do not pose a threat to human health or the environment. Under authority granted by EPA, the State of South Carolina has also developed Hazardous Waste (HW) regulations. The South Carolina Department of Health and Environmental Control (DHEC) HW regulations adhere to EPA regulations in their entirety with few additional requirements. The regulations contain specific requirements for identification, packaging, labeling, storing, and shipping of HW. These regulations are applicable to Marine Corps Recruit Depot (MCRD), Parris Island. This Hazardous Waste Management Plan (HWMP) updates the HWMP developed in September 1983 to reflect changes in regulations and current management practices at MCRD, Parris Island.

1.2 PURPOSE AND SCOPE

The purpose of this HWMP is to provide a functional waste management system to ensure the identification of all hazardous waste generated at MCRD Parris Island and the proper management of those wastes. The plan assigns responsibilities and establishes procedures for the departments and tenants of MCRD, Parris Island to properly manage hazardous waste.

1.3 AUTHORITY

The HWMP for MCRD, Parris Island is prepared in accordance with MCO P5090.2. This Manual requires each Marine Corps facility that generates hazardous waste to develop a HWMP that addresses all applicable federal, state, and local regulations.

1.4 DEFINITIONS

The plan adopts definitions for regulated items that are consistent with state and federal definitions. Appendix A is a list of acronyms, and Appendix B contains definition of terms used throughout the plan.

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1.5 HAZARDOUS WASTE REGULATIONS

Various federal and state regulations govern the management of hazardous waste at MCRD, Parris Island. This section presents a summary of these requirements.

1.5.1 Hazardous Substance Regulations: 40 Code of Federal Regulations (CFR) 116 - 117 and 49 CFR 172.101 provide a list of chemicals that EPA has designated as hazardous substances. Mixtures or solutions containing any of the designated hazardous substances are included under the regulation. The list also specifies what the reportable quantity is for each substance. Any release of a reportable quantity (or greater) of a hazardous substance must be reported to the National Response Center (800/424-8802 or 202/426-2675) and the South Carolina Department of Health and Environmental Control 24 hour emergency telephone number (803/253-6488) immediately. A release is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous substances where such a release has the potential to threaten human health or the environment outside the facility.

1.5.2 Hazardous Material Transportation Regulations: Both the EPA and the State of South Carolina have incorporated the Department of Transportation (DOT) hazardous materials transportation regulations with respect to the shipping and transporting of hazardous waste. The DOT regulations specify the type of container, description of material, labeling and marking of the container, placarding of the vehicle, and required shipping paper entries.

1.5.3 Status of Federal Waste Regulations in South Carolina: The federal regulations for hazardous waste management promulgated in May, 1980 with subsequent revisions form the basis for this plan. The State of South Carolina has adopted the federal regulations and has been given general authorization from EPA to administer a hazardous waste program. The South Carolina Department of Health and Environmental Control has complete responsibility for enforcement of those regulations. The EPA still retains the authority to enforce regulations that involve HW management and are not included within the authority of the State of South Carolina.

1.5.4 Local Regulations: The local regulations do not go beyond that of the South Carolina Department of Health and Environmental Control.

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1.5.5 South Carolina Hazardous Waste Regulations: The rule making and enforcement agency in South Carolina for hazardous waste management is:

State of South Carolina
Department of Health and Environmental Control (DHEC)
Bureau of Solid and Hazardous Waste Management
2600 Bull Street
Columbia, South Carolina 29201

1.6 DESCRIPTION OF THE ACTIVITY'S MISSION

Marine Corps Recruit Depot, Parris Island is a facility for Marine Corps recruit reception and training, infantry training, and provision of various types of schools as requested. MCRD, Parris Island is located in Beaufort County and is approximately six miles south of Beaufort, South Carolina.

The total acreage of the installation is 8407, 4733 of which is tidal marshes. MCRD Parris Island is bounded on the east by the Beaufort River, on the west by Broad River, at the south by Port Royal Sound, and on the north by Archer Creek. The mailing address is:

COMMANDING GENERAL
AC/S I&L ATTN NREAO
MCRD ERR
PO BOX 19001
PARRIS ISLAND SC 29905-9001

1.7 ANNUAL HAZARDOUS WASTE GENERATION RATE

With implementation of this HWMP, segregated HW will be containerized and removed from MCRD, Parris Island in less than 90 days. MCRD, Parris Island generates more than 1000 kg (over 2200 pounds or 300 gallons) of hazardous waste per month. Therefore, MCRD, Parris Island is by definition a greater-than-1000 kg/mo generator of hazardous waste and is required to comply with applicable federal and state hazardous waste regulations. MCRD, Parris Island does not operate a permitted treatment, storage, or disposal facility (TSDF). MCRD, Parris Island will require all hazardous waste to be removed from the Hazardous Waste Storage Building (Bldg. 953) to a permitted TSDF within 90 days.

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BDAT	Best Demonstrated Available Technology
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLP	Cleaner, Lubricant, and Protectant
CFR	Code of Federal Regulations
DHEC	Department of Health and Environmental Control (South Carolina)
DOD	Department of Defense
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
EPA	Environmental Protection Agency
FP	Flash Point
GC/MS	Gas Chromatography/Mass Spectroscopy
HM	Hazardous Material
HMIS	Hazardous Material Information System
HOC	Halogenated Organic Compound
HPLC	High Pressure Liquid Chromatography
HW	Hazardous Waste
HWC	Hazardous Waste Coordinator
HWMP	Hazardous Waste Management Plan
HWSA	The Hazardous and Solid Waste Amendments of 1984
KG	Kilogram
LC	50 Lethal Concentration Fifty
LD	50 Lethal Dose Fifty
MCRD	Marine Corps Recruit Depot
MSDS	Material Safety Data Sheet
MG	Milligram
NA	North American
NEESA	Naval Energy and Environmental Support Activity
NOSC	Navy On-Scene Coordinator
NOSCDR	Navy On-Scene Commander
NPDES	National Pollutant Discharge Elimination System
NREAO	Natural Resources and Environmental Affairs Officer
NSN	National Stock Number
OPNAV	Chief of Naval Operations
OPNAVINST	Chief of Naval Operations Instructional

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ORM	Other Regular Material
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyls
PFLT	Paint Filter Liquid Test
RCRA	Resource Conservation and Recovery Act
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage, and Disposal Facility
UN	United Nations
USMC	United States Marine Corps
USN	United States Navy
W/C	Work Center
WWTP	Wastewater Treatment Plant

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DEFINITIONS

ACUTELY HAZARDOUS WASTE: A waste that has been found fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. These wastes are identified in 40 CFR 261.31 by the Hazard Code "H" and listed in 40 CFR 261.33(e) as the "P" list.

CONTAINER: Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

CONTINGENCY PLAN: A document setting out an organized, planned, and coordinated course of action to be followed in case of fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

CORROSIVE WASTE: A waste subject to regulations because of such properties as acidity or alkalinity, would tend to weaken or erode a common construction material.

CORROSIVITY: A waste is corrosive if a representative sample of a material has any of the following properties:

- a) It is aqueous and has a pH less than or equal to 2 or equal to or greater than 12.5; or
- b) It is a liquid that corrodes steel at a rate greater than 6.35 mm (0.250 inches) per year at a test temperature of 55 degrees Centigrade (130 degrees Fahrenheit).

Corrosive wastes are assigned the EPA Hazardous Waste Number D002.

DRMO: Formerly the Defense Property Disposal Office (DPDO). That agency which coordinates the disposal or reuse of hazardous materials and hazardous wastes.

GENERATOR: Any person, by site, whose act or process produces hazardous waste identified or listed, or whose act first causes a hazardous waste to become subject to regulation.

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HAZARDOUS MATERIAL: Any item designated by the U.S. Secretary of Transportation as posing a potential threat while being transported. Hazardous Materials are listed in 40 CFR 172 and incorporate hazardous substances and hazardous wastes.

HAZARDOUS SUBSTANCES: A specific list of chemicals designated by EPA in 40 CFR 116-117 which pose a threat to the environment when discharged or spilled. Hazardous substances are regulated only when they are discharged above certain quantities (called reportable quantities).

THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984: Expands RCRA and significantly increases regulatory control over hazardous waste handling and disposal. As a result of HSWA, many new regulations have been and will be promulgated, disposal practices for certain wastes may be banned, new substances will be "listed" as hazardous wastes, minimum technology standards are specified, and EPA's enforcement powers are expanded.

HAZARDOUS WASTE: A solid waste which is included in lists published by EPA in 40 CFR 261 (or by state under authority from EPA); or a solid waste which is ignitable, corrosive, reactive or exhibits a toxicity characteristic.

IGNITABILITY: A waste is ignitable if a representative sample of the material has any of the following properties:

- a) Is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a closed cup flash point less than 60 degrees Centigrade (140 degrees Fahrenheit);
- b) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;
- c) It is an ignitable compressed gas; or
- d) It is an oxidizer.

Ignitable wastes are assigned the EPA Hazardous Waste Number D001.

LISTED WASTES: Listed hazardous wastes are identified in 40 CFR 261.31, 261.32 and 261.33.

MANIFEST: The form used for identifying the quantity, composition, and the origin, routing, and destination of hazardous waste during

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its transportation from the point of generation to the point of off-site disposal, treatment, or storage.

OTHER REGULATED MATERIALS (ORM): Any material that may pose an unreasonable risk to health and safety or property when transported in commerce; and does not meet any of the definitions of the other hazard classes specified in DOT regulations; or has been reclassified an ORM (e.g., consumer commodity).

ORM-A: A material which has an anesthetic, irritating, noxious, toxic or other similar property and which can cause extreme annoyance or discomfort to passengers and crew in the event of leakage during transportation.

ORM-B: A material (including a solid when wet with water capable of causing significant damage to a transport vehicle or vessel from leakage during transportation.

ORM-C: A material which has other inherent characteristics not described as an ORM-A or ORM-B material but which make it unsuitable for shipment, unless properly identified and prepared for transportation.

ORM-D: A material such as a consumer commodity which, though otherwise subject to the regulations of 49 CFR 173 Subpart J, presents a limited hazard during transportation due to its form, quantity and packaging. (As a waste these materials must be identified to their original hazard class.)

ORM-E: A material that is not included in any other hazard class, but is subject to 49 CFR 173 Subpart J. Materials in this class also include hazardous wastes and hazardous substances not covered by other hazard classes.

RCRA: Resource Conservation and Recovery Act which was enacted by Congress in 1976 to provide for the control of solid waste disposal including emphasis on recycling and safe hazardous waste handling and disposal. Greatest impact of this Act is in the establishment of a system to track hazardous waste from generation to disposal. There is a provision for passing operation of the hazardous waste program to the states.

REACTIVITY: A material exhibits the characteristic of reactivity if a representative sample of the material has any of the following properties:

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- a) It is normally unstable and readily undergoes violent change without detonating;
- b) It reacts violently with water;
- c) It forms potentially explosive mixtures with water;
- d) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;
- e) It is a cyanide or sulfide-bearing material which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;
- f) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source, or is heated under confinement;
- g) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or
- h) It is a forbidden explosive, or a Class A or B explosive as defined in 49 CFR 173.51, 173.53 or 173.88 respectively.

Reactive wastes are assigned the EPA Hazardous Waste Number D003.

RECLAIMED: A material is considered reclaimed if it is processed to recover a usable product or to regenerate a material.

RECYCLED: A material is recycled if it is used, reused or reclaimed.

REUSED: A material is considered being reused if the material is employed as an ingredient in an industrial process to make a product or employed in a particular function or application as an effective substitute for a commercial product.

SATELLITE ACCUMULATION AREAS: Those places where wastes are temporarily stored after generation in the industrial process or the laboratory prior to removal to a central storage area. This point of accumulation is under the control of the operator of the process that is generating the waste. A hazardous waste stream can be accumulated up to 55 gallons indefinitely. However, when 55 gallons have been accumulated, the hazardous waste must then be moved to the Hazardous Waste Storage Building (Bldg. 953) within three days after the time that 55 gallons was accumulated.

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SOLID WASTE: Any solid, liquid, semi-solid or contained gaseous material resulting from industrial, commercial, mining, agricultural or community activity which:

- a) Is discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded;
- b) Has served its original intended use and is discarded; or
- c) Is a manufacturing by-product and is sometimes discarded.

TANK: A stationary device designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provides structural support.

TCLP: Toxicity Characteristic Leaching Procedure which determines the mobility of both organic and inorganic contaminants present in liquid, solid, and multiphase wastes.

TOXICITY CHARACTERISTIC: A hazardous waste has a toxicity characteristic if any of its chemicals exceeds the specified regulatory levels set by the EPA. Such a waste is called a toxicity characteristic waste (TC waste).

TSCA: Toxic Substances Control Act which provides for the Federal regulation of chemical substances that present a hazard to health or the environment. Such regulation requires the testing of new substances and subsequent control of distribution in commerce if required. The Act also contains specific requirements relative to polychlorinated biphenyls (PCBs).

UN/NA: Identification numbers assigned to hazardous materials are preceded by either a "UN" or "NA". The identification numbers are indexed to response instructions for use in event of an accident. Those preceded by "UN" are associated with descriptions considered appropriate for international shipments as well as domestic shipments. The "NA" designation is limited to use in the United States and Canada only.

USED OIL: Any oil that has been refined from crude oil, used, and as a result of such use, is contaminated by physical or chemical impurities to the extent that it can no longer be used for its intended purpose. Wastes that contain oils that have not been used (e.g., virgin fuel oil storage tank bottom clean-out waste) are not used oil unless they are mixed with used oil.

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WORK CENTER: An area where hazardous waste or waste oil is generated. This area must be under the control of the generator and be used only for accumulation of small amounts of HW. At the end of each shift, this waste is transferred to the adjoining satellite accumulation area.

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2.0 HAZARDOUS WASTE MANAGEMENT AT MCRD, PARRIS ISLAND

2.1 OVERVIEW

The overall management of hazardous waste at MCRD, Parris Island is the responsibility of the Natural Resources and Environmental Affairs Officer. NREAO will provide support to all departments, commands, and tenants. Each department, command, and tenant which produces a hazardous waste is defined as a generator. The place of generation is a work center (W/C). Generators must identify wastes, and follow the handling instructions specified by NREAO. In addition, each generator shall designate a Hazardous Waste Coordinator who shall be responsible for coordinating waste compliance within the generating work center with NREAO.

2.2 SPECIFIC RESPONSIBILITIES

Commanding General, MCRD, Parris Island:

Brigadier General J. D. Humble
(telephone # 803-525-5413)

1. Ensure compliance with RCRA at the activity.

Natural Resources and Environmental Affairs Officer:

Johnsie Nabors
(telephone # 803-525-2779)

1. Ensure that activity's hazardous waste management program receives appropriate command attention and ensure that the policies of the program are implemented.
2. Provide manpower allotments for activity hazardous waste compliance.
3. Aid in fund allocation for hazardous waste tasks.
4. Respond to hazardous waste spills in support of the Hazardous Waste Manager.

Hazardous Waste Manager:

Jim Clark
(telephone # 803-525-2663)

The Hazardous Waste Manager is in charge of the management and implementation of the MCRD, Parris Island HW Management Program. Responsibilities of this position include:

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1. Update the HWMP at least annually and as necessary to incorporate changes in facility operations, waste generated, and applicable regulations.
2. Maintain the HW operating budget.
3. Administer all HW disposal documentation initiated by MCRD, Parris Island and support DRMO regarding HW disposal.
4. Respond to all HW spills/leaks.
5. Obtain and supply necessary operating equipment such as containers, labels, forms, and monitor compliance of generators with the HWMP.
6. Maintain copies of previously used manifests.
7. Prepare annual report.
8. Maintain the facility inspection records, contingency plan, training records, waste analysis records, manifests, and prepare & submit the South Carolina Department of Health and Environmental Control Quarterly Report.
9. Train HW Coordinators on proper HW management and maintain required documentation. It is important for the Hazardous Waste Manager to keep in constant check for personnel changes and new HW Coordinators. MCRD, Parris Island has a high turn-over rate of HW Coordinators.
10. Conduct quarterly meetings with the HW Coordinators to discuss problem areas and environmental regulatory compliance issues.
11. Identify HW drums at the Hazardous Waste Storage Building (Bldg. 953) that are ready for pick-up before the 90 day limit is exceeded (once the disposal contract is initiated, the disposal contractor will pick-up HW drums within 30 days).
12. Answer all day to day inquiries concerning HW management.
13. Ensure maintenance of all Emergency Response equipment.
14. Ensures all HW drums are labeled and packaged in accordance with applicable DOT and RCRA regulations.
15. Coordinate HW drum removal from the satellite accumulation areas to the Hazardous Waste Storage Building (Bldg. 953).
16. Coordinate Emergency Response procedures with the MCRD, Parris Island Fire Department and Police Department.
17. Inspect the Hazardous Waste Storage Building (Bldg. 953) weekly as required by regulations.
18. Inspect all work centers and adjoining satellite accumulation areas weekly.

HW Coordinators:

Each generating W/C will have a designated HW Coordinator. This coordinator will be designated by the station department or tenant command for that location. The HW Manager will be updated with HW Coordinators names and telephone numbers. HW Coordinator responsibilities include:

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1. Maintain logs at the work center of all HW added to drums. These logs include the name of the person adding waste, date, type of waste, and amount of waste added.
2. Issue any safety equipment needed to transfer waste from work center containers to collection point containers.
3. Conduct daily inspections of satellite accumulation areas.
4. Train all W/C personnel involved with handling and transporting HW and provide training documentation to NREAO.
5. Contact NREAO when a resupply of containers, labels, spill absorbent material, etc., is needed.
6. Respond to all spills/clean-up. Contact NREAO when any spills occur.
7. Maintain MSDSs on all materials used in the work center.
8. Contact NREAO prior to establishing new generating points or storage areas.
9. Complete DD Form 1348-1 disposal turn-in document for HW to be treated or disposed off-site and notify NREAO for pick-up.
10. Ensure that no HW is accumulated at the satellite accumulation area, in excess of 55 gallons, for longer than 3 days from the accumulation start date.
11. Ensure that the proper personal protective equipment is available, in good condition, and is properly used by workers involved in handling waste material.
12. Ensure that only licensed forklift operators transport HW drums.

W/C Personnel

Each individual who handles HW during the course of his or her job function has the following responsibilities:

1. Properly segregate the waste.
2. Place the waste in the proper collection container.
3. Assure each container is labeled "HAZARDOUS WASTE".
4. Date the label as required.
5. Fill out the proper log sheet each time waste is added to a collection container.
6. Contact the HW Coordinator should any spill/leak occur.
7. Assist the HW Coordinator in transporting HW from the satellite accumulation area to the Hazardous Waste Storage Building (Bldg. 953.)
8. Participate in the containment, dilution/neutralization, decontamination, and disposal of spilled HW.

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3.0 WASTE ANALYSIS PLAN

3.1 HAZARDOUS WASTE DEFINITION AND IDENTIFICATION

Proper HW management begins with properly identifying and classifying all the waste streams generated throughout the Depot. The Resource Conservation and Recovery Act defines hazardous waste as a solid waste (including liquids and gases) or combination of solid wastes which, because of its concentration, quantity, or physical or chemical characteristics, may:

1. Cause or significantly contribute to an increase in mortality or in serious irreversible, or incapacitating reversible, illness; or
2. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

3.2 EPA HAZARDOUS WASTE DEFINITION

Once the waste streams are identified, they must be classified hazardous or non-hazardous according to the EPA definition. There are four steps for determining whether a solid waste is regulated as a hazardous waste under federal law:

1. First, determine if the waste is exempted from regulation as a solid or a HW in 40 CFR 261.4.
2. Second, check to see if it is listed as a HW in Subpart D of 40 CFR 261. Listed wastes are regulated as HW unless they have been specifically delisted.
3. If the waste has not been listed as a HW, determine if it exhibits, on analysis, any of the characteristics of a HW, cited in Subpart C of 40 CFR 261.
4. Last, determine if the waste is a mixture. A mixture of a listed waste and a nonhazardous solid waste is considered hazardous unless it has been specifically excluded under 40 CFR 261.3. A mixture of a characteristic waste and a nonhazardous solid waste is only considered hazardous if it still exhibits one or more of the HW characteristics.

3.3 CHEMICAL AND PHYSICAL CHARACTERISTICS

Specific hazard information for materials can be obtained using DOD Hazardous Materials Information System (HMIS) on CD ROM (DOD Publication 6050.5-L). The HMIS is indexed by National Stock Number (NSN) and cross-indexed by the product name. Appendix A lists the data available on individual chemical products from the

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HMIS. This data base provides the necessary information for properly managing hazardous wastes.

It is possible that the HMIS will not have all desired information. Additional sources of information must be consulted in these cases. Some excellent additional sources of information are:

1. The Condensed Chemical Dictionary (Hawley). Contains technical data and descriptive information for thousands of chemicals.
2. Fire Protection Manual on Hazardous Materials (NFPA). Includes data on many brand name products.
3. Dangerous Properties of Industrial Materials (Sax). Provides extensive toxicological data and is cross-indexed by known synonyms.
4. Material Safety Data Sheets prepared by the manufacturer.
5. The Hazardous Materials Shipping Table found in 49 CFR 172 contains lists of materials recognized as hazardous by DOT and associated hazard class and packaging requirements.
6. The lists of HW published by EPA in 49 CFR 261 should also be consulted.

If these reference materials do not contain the needed information, laboratory testing of the waste will be necessary. A representative sample of the waste should be collected and the analysis protocol described below for unknown wastes should be followed. The protocol can be reduced based on the information that is available. For instance, a water based waste need not be tested for flashpoint, a paint sludge waste need not be tested for pesticides, etc. Therefore testing may be reduced based upon a reasonable knowledge that one or more parameters are not relevant to the waste stream.

3.4 WASTE ANALYSIS

HW determination must be made in accordance with 40 CFR 262.11 for all unidentified waste streams. The Waste Analysis Plan is designed to maximize the use of existing data to minimize the need for analytical testing. However, analytical testing will be required periodically. When required, this data must be obtained under procedures consistent with EPA regulations. The following is a waste analysis procedure of an unknown waste:

1. Record all markings on the drum; particularly a NSN, product name, or chemical name.
2. If a NSN is found, locate the NSN in the HMIS CD ROM. The CD ROM record will detail specific information (color, appearance, pH, specific gravity) which should be compared to the unknown

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material. This may eliminate the need for expensive testing. For instance if the CD ROM record indicates the material should have a pH of 4.0 and a density of 1.3, a lab can inexpensively and quickly check these parameters. If they match, then the unknown is the same as the NSN on the drum. If no NSN is present, but a product name is located on the drum, use the same procedure checking the product cross-reference to the HMIS. If only a chemical name is present, information on chemicals can be found in Dangerous Properties of Industrial Materials, Irving Sax, editor (available from Van Nostrand Reinhold Co.) and the Fire Protection Guide to Hazardous Materials (available from National Fire Protection Association, Boston, MA). Material Safety Data Sheets on file with the Safety Office or Supply Department may also be used.

3. If in Step 2 the material has been determined to be the same as the drum markings, use the HMIS, laboratory analysis, or other sources to determine the following (a yes answer to any one question means the material is a HW):
 - a) Is the pH less than 2.0?
 - b) Is the pH greater than 12.5?
 - c) Is the flash point less than 140 degrees F?
 - d) Is the material an oxidizer?
 - e) Does the material react violently with water?
 - f) Does the material contain arsenic, barium, cadmium, chromium, lead, mercury, selenium, or silver?
 - g) Does the material contain any chemical listed in 40 CFR 261.31?
 - h) Is the material a pure form of any chemical listed in 40 CFR 261.33(e) or 40 CFR 261.33(f)?
4. If the material does not match the container markings, it is necessary to test it to determine if the waste is a HW. A lab should be asked to run the "Characteristics of HW." (Note: Do not run TCLP for pesticides unless it is suspected that pesticides are present). It is not probable that the unknown would contain any of these chemicals, and the tests are very expensive.) If the material fails one or more of the characteristic tests, it is a HW. If the unknown passes these tests, ask the lab to then identify the material by either GC/MS or HPLC analysis. These tests are very expensive. The cost can be reduced by giving the lab as much information as possible about the material, including a list of probable materials.

It is possible that additional tests may be required on some drums. For instance, a check for PCBs may be necessary on oily wastes

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prior to disposal.

All laboratory tests will be conducted using regulatory approved/required analytical protocols and certified by the analyst. Procedures to be followed include those in EPA Publication SW-846, Test Methods for Evaluating Solid Waste, and DOT methods referenced in 49 CFR 171.8. Appendix B of this text shows the test methods currently used at MCRD, Parris Island.

3.5 PARAMETERS FOR ANALYSIS

Tetrachloroethylene waste, paint waste and paint sludges, along with contaminated waste oils constitute the majority of hazardous waste generated at MCRD, Parris Island. These waste will be analyzed for the following parameters:

1. Tetrachloroethylene (Perchloroethylene) - Toxicity Characteristic Leaching Procedure (TCLP).
2. Paint and Paint Sludges - Flash Point, TCLP and total organic halogens (TOX).
3. Waste Oils - Total organic halogens (TOX), TCLP, flammability, flash point, PCBs and water content.

Knowledge of process or analysis will be used in identifying present and new waste streams. Container markings and labels will be used in identifying unused materials in unopened containers. Unopened containers and partially filled containers will not be analyzed unless there is evidence that:

1. Labels and/or container markings have been changed/destroyed;
2. Container holds a material different from the labels/markings;
3. Additional material has been introduced into the container.

3.6 SAMPLING METHODS

Many waste streams are heterogeneous; therefore, care must be taken to obtain a representative sample. In sampling wastes, consideration will be given to the uniformity of the waste in a container and to daily variations in production which may cause the waste to vary. The sampling procedures shown in Appendix C of this text and cited in Appendix I of 40 CFR, Part 261 of the Federal rules and regulations regarding hazardous waste will be followed. Appendix D of this text illustrates sampling points recommended for most waste containers.

3.7 Frequency of Analysis

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Hazardous waste generated at MCRD, Parris Island will be analyzed initially for the parameters noted in Section 3.5. Analysis of the waste will be repeated in the event of a process change or if a waste is suspected of containing F001-F005 solvent waste as noted in the South Carolina Department of Health and Environmental Control Regulation R.61-79.268, "Land Disposal Restrictions." Such a sampling frequency is considered sufficient since the waste characteristics are not expected to vary.

3.8 Requirements for Incompatible Wastes

All incompatible wastes must be identified so that they may be segregated when stored in the Hazardous Waste Storage Building (Bldg. 953). Identification of incompatibles should be made by NREAO. Use of the HMIS and reference books will provide this information.

3.9 Land Disposal Requirements

Prohibition on land disposal of certain HW has been implemented since November 8, 1986 and is scheduled to continue in the future. The regulatory requirements are contained in 40 CFR 268.

MCRD, Parris Island must either use analytical testing or knowledge of the Depot HW streams to determine if wastes are restricted from land disposal. Two groups of land disposal restrictions apply to MCRD, Parris Island:

1. Spent solvent wastes F001, F002, F003, F004, and F005 as defined in 40 CFR 261.31.
2. The "California List" as defined in 40 CFR 268.32.

These restricted wastes must be accompanied by a notification form revealing to the TSDF the category of the restricted waste stream. A sample notification form for the spent solvents outlined above is provided as Appendix E of this text; and a sample notification form for the "California List" is provided as Appendix F of this text. These sample forms are provided for clarity in understanding the land disposal requirements. The notification requirements are usually best accomplished with disposal vendor supplied forms to be completed and signed by an authorized representative of MCRD, Parris Island.

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INFORMATION AVAILABLE FROM THE
HMIS ON UNUSED MATERIAL WASTES

National Stock Number	Part Number/Trade Name
Proprietary (Y/N)	Manufacturer & Telephone Number
Item name	Unit of Issue Quantity
Container Size, Type	Exemption Number for container
Radioactivity Data	Chemical Name(s) & Formula
Hazardous Components:	DOT Requirements:
Chemical Name	Class
NIOSH Number	Label
Percent Product	ID Number
TLV	RQ
Health & Physical Property	Storage and Handling Data:
Boiling Point	Extinguishing Media
Flashpoint	Unusual Fire Hazards
Explosion Limits	Protective Equipment
Vapor Density	Ventilation
Specific Gravity	Handling Precautions
Solubility in Water	Other Precautions
Appearance and Odor	Incompatibles
Effects and Overexposure	Conditions to Avoid
First Aid	
Hazardous Decomposition Products	

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TEST METHODS USED

Ignitability - An EPA approved method of determining ignitability is the Pensky-Masters Closed Cup Tester, as specified by ASTM Standard D-93-79.

Corrosiveness - An EPA approved method for determining corrosiveness is stated in "Test Methods for Evaluating Solid Waste", (EPA Publication Number SW-846).

Halogen Content - The halogen content of a waste may be determined by Method Number 903F0 presented in "Test Methods for Evaluating Solid Waste".

Reactivity - An EPA approved method for determining reactivity is stated in "Test Methods for Evaluating Solid Waste", (EPA Publication Number SW-846).

Toxicity Characteristic Leaching Procedure (TCLP) - The Toxicity Characteristic Leaching Procedure specified in the South Carolina Department of Health and Environmental Control Regulation R.61-79.268, "Land Disposal Restrictions", will be followed on wastes which may contain F001-F005 solvent wastes, high metal concentration wastes, pesticide containing wastes, and other restricted wastes. If a total analysis of the waste demonstrates that individual constituents are not present in the waste, or that they are present in such low concentrations that the appropriate regulation threshold could not possibly be exceeded, the TCLP will not be run.

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SAMPLING METHODS FOR VARIOUS TYPES OF WASTE

1. Extremely viscous liquid (ASM Standard D140-70).
2. Crushed or powdered material (ASTM Standard D346-755).
3. Soil or rock-like material (ASTM Standard D420-69).
4. Soil-like material (ASTM Standard D1452-65).
5. Fly ash-like material (ASTM Standard D2234-76).
6. Containerized liquid waste "COLIWASA", described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods".
7. Liquid waste in pits, ponds, lagoons, and similar reservoir - refer to the section "Pond Sampler" in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods".
8. F001-F005 Solvent Waste - The Toxicity Characteristic Leaching Procedure Sampling Method specified in the South Carolina Department of Health and Environmental Control Regulation R.61-79.268, "Land Disposal Restrictions" will be followed on wastes which may contain F001-F005 solvent wastes.

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SAMPLING POINTS RECOMMENDED FOR MOST WASTE CONTAINERS

<u>Container Type</u>	<u>Sampling Point</u>
Drum, bung on one end	Withdraw sample through the bung opening.
Drum, bung on side	Lay drum on side with bung up. Withdraw sample through the bung opening.
Barrel, fiber drum, buckets, sacks, bags	Withdraw sample through the top of the barrels, fiber drums, buckets, and similar containers. Withdraw sample through fill openings of bags and sacks. Withdraw sample through the center of the containers and to different points diagonally opposite the point of entry.
Vacuum truck and similar containers	Withdraw sample through open hatch. Sample all other hatches.
Soil	Divide the surface area into a grid (The number of grids is determined by the desired number of samples to be collected which, when combined, should give a representative sample of the wastes). Sample each grid.

Strict chain of custody will be maintained for those samples taken for regulatory agencies. Each person who handles the sample will, upon request, sign and date the identification tag.

The sample container will be compatible with the waste. Except for some solvents, a plastic (1 quart) bottle is best. Corrosive samples will not be placed in metal containers.

Laboratories must certify that their procedures are EPA approved and, in that certification, references Test Methods Manual SW-846. For all hazardous wastes that are placed in containers ranging size

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from 5 gallons to 85 gallons, the sampling method employed is a COLIWASA sampler. This device collects liquid throughout the depth of liquid in a container.

To assure a uniform sample, wastes will be agitated prior to sampling, if possible. Instructions for drum sampling are presented in Appendix G of this text. For all wastes except mixed paint waste, a single sample (top to bottom) will be taken from a container. If the waste is heterogeneous and/or contains one or more layers, one sample should be taken from each layer.

Paint waste containers are sampled by obtaining a composite sample from three (3) grab samples at the top, middle, and bottom of the container. Samples from multiple containers of mixed paint waste are not made into a composite.

Empty containers should be handled as follows. Containers previously holding materials that are listed wastes or that exhibit characteristics of a hazardous waste must be carefully managed to assure proper handling. First, all materials that can be removed should be removed from the containers. Removal practices should be those commonly used to remove materials from the type of containers (e.g., pouring and pumping). If the material in the container is a listed waste having an EPA hazardous waste number beginning with the letter "P" [see Section 40 CFR 261.33(e)], the container must be managed as though it contained a hazardous waste.

If the container is triple-rinsed to remove the residue, the container may be considered empty and managed as nonhazardous; however, the residue and rinsed material must be managed as hazardous waste. (Triple rinsing means rinsing the container three (3) times with a solvent capable of removing the product from the container. A volume of solvent equal to at least 10 percent of the volume of the container should be used for each rinse.)

Containers with other materials may be considered empty and handled as nonhazardous waste if no more than 2.5 centimeters (1 inch) of residue remains on the bottom of the container and if all material which can easily be removed by pouring has been removed.

DOT requires that when such "empty" containers are offered for transportation, they be considered to contain hazardous material unless they have been properly rinsed.

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SPENT SOLVENT WASTE

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: _____ Profile #: _____

EPA Hazardous Waste # _____ Manifest #: _____

This form is submitted to _____ in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of restricted hazardous waste identified above has been listed as a restricted waste by EPA under the Part 268 regulations. In accordance with the waste analysis and record keeping requirements set forth in 40 CFR 268.7, I have marked the appropriate box below to indicate how my waste must be managed to conform to the regulations (See instructions for marking the appropriate box). Waste analysis data is included where available.

Restricted Waste Requires Treatment

1. The waste identified above must be treated to the appropriate standard identified in 40 CFR 268 Subpart D.

Restricted Waste Treated To Performance Standards

2. The waste identified above has been treated, the treatment residues have been tested in accordance with the facility Waste Analysis Plan, and the residues have been found to meet the performance standards specified in 40 CFR Part 268 Subpart D. "I certify under penalty of law that I personally have examined and am familiar with treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

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Restricted Waste Can Be Land Disposed Without Further Treatment

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

3. "I certify under penalty of law that I have personally examined and am familiar with the waste analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Restricted Waste Subject To Variance

4. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____.

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature

Title

Date

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Instructions For Completing Spent Solvent Waste Notification Form

Mark Box 1 if you are the initial generator of a spent solvent waste specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F001, F002, F003, F004, or F005, and your waste is ineligible for a nationwide variance or other exemption from the November 8, 1986 prohibition date (See bottom of page).

If Box 1 is marked, your solvent waste is restricted and must be treated to the standards set forth in the box below prior to land disposal.

Constituent Concentration in Waste Extract (CCWE) Table

<u>Solvent Constituents</u>	<u>Treatment Standard (mg/l)</u>			
	<u>Wastewaters</u>		<u>All Other Wastes</u>	
<u>Acetone</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.59</u>
<u>n-Butyl Alcohol</u>	<u> </u>	<u>5.0</u>	<u> </u>	<u>5.0</u>
<u>Carbon Disulfide</u>	<u> </u>	<u>1.05</u>	<u> </u>	<u>4.81</u>
<u>Carbon Tetrachloride</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.96</u>
<u>Chlorobenzene</u>	<u> </u>	<u>0.15</u>	<u> </u>	<u>0.05</u>
<u>Cresols</u>	<u> </u>	<u>2.82</u>	<u> </u>	<u>0.75</u>
<u>Cresylic Acid</u>	<u> </u>	<u>2.82</u>	<u> </u>	<u>0.75</u>
<u>Cyclohexanone</u>	<u> </u>	<u>0.125</u>	<u> </u>	<u>0.75</u>
<u>1,2-Dichlorobenzene</u>	<u> </u>	<u>0.65</u>	<u> </u>	<u>0.125</u>
<u>Ethyl Acetate</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.75</u>
<u>Ethyl Benzene</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.053</u>
<u>Ethyl Ether</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.75</u>
<u>Isobutanol</u>	<u> </u>	<u>5.0</u>	<u> </u>	<u>5.0</u>
<u>Methanol</u>	<u> </u>	<u>0.25</u>	<u> </u>	<u>0.75</u>

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<u>Methylene Chloride</u>	<u> </u>	<u>0.20</u>	<u> </u>	<u>0.96</u>
<u>Methylene Chloride (from</u>	<u> </u>	<u></u>	<u> </u>	<u></u>
<u>pharmaceutical industry)</u>	<u> </u>	<u>12.7</u>	<u> </u>	<u>0.96</u>
<u>Methyl Ethyl Ketone</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.75</u>
<u>Methyl Isobutyl Ketone</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.33</u>
<u>Nitrobenzene</u>	<u> </u>	<u>0.66</u>	<u> </u>	<u>0.125</u>
<u>Pyridine</u>	<u> </u>	<u>1.12</u>	<u> </u>	<u>0.33</u>
<u>Tetrachloroethylene</u>	<u> </u>	<u>0.079</u>	<u> </u>	<u>0.05</u>
<u>Toluene</u>	<u> </u>	<u>1.12</u>	<u> </u>	<u>0.33</u>
<u>1,1,1-Trichloroethane</u>	<u> </u>	<u>1.05</u>	<u> </u>	<u>0.41</u>
<u>1,1,2-Trichloro-</u>	<u> </u>	<u></u>	<u> </u>	<u></u>
<u>1,2,2-Trifluorethane</u>	<u> </u>	<u>1.05</u>	<u> </u>	<u>0.96</u>
<u>Trichloroethylene</u>	<u> </u>	<u>0.062</u>	<u> </u>	<u>0.091</u>
<u>Trichlorofluoromethane</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.96</u>
<u>Xylene</u>	<u> </u>	<u>0.05</u>	<u> </u>	<u>0.15</u>

Mark Box 2 if you are the owner/operator of a treatment facility that has treated restricted solvent waste to the treatment standards set out in the above table.

Mark Box 3 if the waste can be land disposed without further treatment.

Mark Box 4 and the appropriate line below to indicate that your waste is not restricted from land disposal.

 1. The solvent waste is a contaminated soil and debris generated from a response action taken under section 104 or 106 of CERCLA or a corrective action required under Subtitle C of RCRA

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(This variance expires 11/8/90).

____ 2. The solvent waste is subject to a case-by-case extension or no-migration petition.

____ 3. For F001-F005 wastes destined for deep well injection, the waste is a solvent water mixture or solvent containing sludge with less than 1% F001-F005 solvent constituents listed above (This variance expires 8/8/90).

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CALIFORNIA LIST WASTES

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator Name: _____ Profile #: _____

EPA Hazardous Waste #: _____ Manifest #: _____

This form is submitted to _____ in accordance with regulations published by EPA at 40 CFR Part 268, which govern the land disposal of certain untreated hazardous wastes. The hazardous waste identified above is one of the "California List" wastes under EPA's Part 268 regulations. In accordance with the waste analysis and record keeping requirements specified by EPA in 40 CFR 268.7, I have marked the appropriate box below which indicates how my waste must be managed to conform to the land disposal ban regulations (See instructions for marking the appropriate box). Waste analysis data is included where available.

Restricted Waste Requires Treatment

1. I am the initial generator of an untreated waste identified above which must be treated to the appropriate treatment standard set forth in 40 CFR 268 Subpart D, or where no treatment standard exists for the California List Waste, the waste must be treated in accordance with the prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d).

Restricted Waste Treated To Performance Standards

2. The waste identified above has been treated in compliance with the applicable performance standards specified in 40 CFR 268 Subpart D and/or the applicable prohibitions set forth in 40 CFR 268.32. "I certify under penalty of law that I personally have examined and am familiar with treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

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Restricted Waste Subject To Variance

3. The waste identified above is not banned from land disposal since it is subject to a case-by-case extension under 40 CFR 268.5, a no migration petition under 40 CFR 268.6, a nationwide variance under Subpart C, or another exemption which expires on _____.

Restricted Waste Can Be Land Disposed Without Further Treatment

I am the initial generator of the waste identified above. I have determined that the waste meets the applicable treatment standards set forth in 40 CFR Part 268 Subpart D, and the applicable prohibition levels set forth in Section 268.32 or RCRA Section 3004(d), and can therefore be land disposed without further treatment.

4. "I certify under penalty of law that I have personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Subpart D and all applicable prohibitions set forth in 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

I hereby certify that all material submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Signature

Title

Date

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30 OCT 1995Instructions for Completing the California List Wastes Notification Form

The California List represents the second phase of the federal land disposal ban which became effective July 8, 1987. A waste is subject to the California List prohibitions if it meets each of the following four criteria:

1. The waste must contain a constituent specified in the California List provisions or have a pH less than or equal to two; and
2. The physical form of the waste must be liquid (except for HOC's); and
3. The waste containing the California List constituent must be listed or identified as hazardous under RCRA section 3001; and
4. The waste must contain a concentration of one or more of the California List constituents at or above the levels specified in section 3004(d).

Any generator or treater that manages a California List waste must accompany the shipment off-site with a notification/certification by marking one of the four boxes on this form.

Mark Box 1 if you are the initial generator of a liquid hazardous waste containing one (or more) of the following substances in the specified concentrations:

1. Free cyanides at concentrations greater or equal to 1000 mg/l.
2. One (or more) of these metals (or elements) at concentrations greater than or equal to those specified below:
 - a) Arsenic and/or compounds (as) 500 mg/l;
 - b) Cadmium and/or compounds (as Cd) 100 mg/l;
 - c) Chromium VI and/or compounds (as CrVI) 500 mg/l;
 - d) Lead and/or compounds (as Pb) 500 mg/l;
 - e) Mercury and/or compounds (as Hg) 20 mg/l;
 - f) Nickel and/or compounds (as Ni) 134 mg/l;
 - g) Selenium and/or compounds (as Se) 100 mg/l;
 - h) Thallium and/or compounds (as Th) 130 mg/l;
3. Liquid hazardous wastes having a pH less than or equal to two (2.0).
4. Liquid and non-liquid hazardous wastes that contain halogenated organic compounds (HOC's) in total concentration greater than or equal to 1000 mg/l.
5. Polychlorinated biphenyls (PCBs) at concentrations greater than

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or equal to 50 ppm (Remember the waste must also be a RCRA hazardous waste).

Mark Box 2 if you have treated one (or more) of the above California List wastes in compliance with the applicable performance standards specified in 40 CFR 268 Subpart D or the applicable prohibitions set forth in 40 CFR 268.32. This means that (1) for liquid hazardous wastes containing free cyanides or metals at the concentration levels specified above, you have treated the waste below those specified concentrations levels, or rendered the waste non-liquid per the paint filter test; or (2) for liquid corrosive wastes, you have either treated the waste above a pH of two, or rendered the waste non-liquid per the paint filter test; or (3) for wastewaters containing HOC's in total concentrations greater than or equal to 1000 mg/l, and less than 10000 mg/l, you have treated the waste below 10002 mg/l; or for liquid and non-liquid HOC's above 1000 mg/l, that are not wastewaters, the wastes were sent to a RCRA incinerator operating in accordance with Parts 264 or 265, or to a boiler or industrial furnace; or (4) for liquid hazardous wastes containing PCB's at concentrations greater than or equal to 50 ppm but less than 500 ppm, you have incinerated the waste in accordance with 40 CFR 761.70 or burned it in a high efficiency boiler in accordance with 40 CFR 761.60; or (5) for liquid hazardous waste containing PCB's at concentrations greater than or equal to 500 ppm, you have incinerated the waste in accordance with 40 CFR 761.70. All liquid hazardous wastes containing PCB's over 50 ppm must also be incinerated in accordance with Parts 264, 265 and 266. The certification on this form must be given by the receiver of the waste for treatment.

Mark Box 3 if your waste is one of the following:

1. The California List waste is soil and debris resulting from a response action taken under section 104 or 106 of CERCLA or a corrective action taken under Subtitle C of RCRA (This variance expires 11/8/90).
2. The California List waste is soil and debris not resulting from a response action taken under section 104 or 106 of CERCLA, or corrective action taken under Subtitle C of RCRA (This variance expires 7/8/89).
3. All California List wastes destined for deep well injection, with the exception of liquid hazardous wastes containing PCB's at concentrations greater than or equal to 50 ppm, or halogenated organic compounds at concentrations greater than or equal to 10,000 mg/kg (This variance for deep injection wells expires 8/8/90).

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Mark Box 4 if the waste can be land disposed without further treatment.

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PROCEDURE FOR SAMPLING WASTE IN DRUMS

- | <u>Step</u> | <u>Procedure</u> |
|-------------|--|
| 1. | Choose the plastic or glass COLIWASA for the liquid waste to be sampled. |
| 2. | Make sure that the sampler is clean. |
| 3. | Check to make sure the sampler is functioning properly. Adjust the locking mechanism if necessary to make sure the neoprene rubber stopper provides a tight closure. |
| 4. | Wear necessary protective clothing and gear and observe required sampling precautions. |
| 5. | Put the sampler in the open position by placing the stopper rod handle in the T position and pushing the rod down until the handle sits against the sampler's locking block. |
| 6. | Slowly lower the sampler into the liquid waste (Lower the sampler at a rate that permits the levels of the liquid inside and outside the sampler tube to remain about the same. If the level of the liquid in the sampler tube is lower than that outside the sampler, the sampling rate is too fast and will result in a nonrepresentative sample). |
| 7. | When the sampler stopper hits the bottom of the waste container, push the sampler tube downward against the stopper to close the sampler. Lock the sampler in the close position by turning the T handle until it is upright and one end rests tightly on the locking block. |
| 8. | Slowly withdraw the sampler from the waste container with one hand while wiping the sampler tube with a disposable cloth or rag with the other hand. |
| 9. | Carefully discharge the sample into a suitable sample container by slowly opening the sampler. This is done by slowly pulling the lower end of the handle away from the locking block while the lower end of the sampler is positioned in a sample container. |
| 10. | Cap the sample container, attach label and seal, record in field log book, and complete sample analysis request sheet. |

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11. Unscrew the T-handle of the sampler and disengage the locking block. Clean sampler on-site or store the contaminated parts of the sampler in a plastic storage tube for subsequent cleaning. Store used rags in plastic bags for subsequent disposal.
12. Deliver the sample to the laboratory for analysis.

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4.0 REQUIREMENTS FOR GENERATING DEPARTMENT/TENANT

4.1 INTRODUCTION

To ensure compliance with 40 CFR 262(d)(2) regarding container management, MCRD, Parris Island will follow the procedure outlined below.

4.2 DAILY COLLECTION OF HAZARDOUS WASTE

4.2.1 Basic Waste Segregation: Work centers will collect HW into appropriate containers on a daily basis. Each type of HW generated must be accumulated in a separate container, Categories and specific examples of segregated wastes are as follows:

1. Used Oil (not contaminated with freon or other solvents)

- a) Jet Fuels
- b) Hydraulic Oils
- c) Lubricating Oils
- d) Diesel Fuels
- e) Synthetic Oils
- f) Other Petroleum Products

Uncontaminated petroleum products are not considered to be a hazardous waste in South Carolina, but may become regulated if mixed with HW.

2. Nonhalogenated Solvents

- a) PD 680 Type I or Type II if flash point is 140F or less
- b) Toluene
- c) Methyl Ethyl Ketone
- d) Naphtha
- e) Xylene
- f) Mineral Spirits
- g) Paint Thinner (containing no paint waste)
- h) Acetone
- i) Other Nonhalogenated Solvents and Mixtures

3. Halogenated Solvents

- a) Methylene Chloride
- b) Trichloroethane
- c) Trichloroethylene
- d) Carbon Removing Compound
- e) Freon2

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f) Other Halogenated Solvents and Mixtures

4. Mixed Paint Waste

5. Acids

6. Bases

Wastes in each of the above categories must be placed in separate containers, and only those items listed in a category may be mixed in that container. Only the used oil and Jet Fuel listed will be placed in bowers and collected for disposal.

This material is not hazardous waste and is not regulated as such.

If any listed solvent is mixed with the used oil, the entire mixture becomes a hazardous waste. All unavoidable oil/solvent mixtures will be placed in the appropriate solvent container.

Under no circumstances will the oil/solvent mixture be added to the used oil container. If it is not handled correctly, serious penalties could be levied against the generating work center.

Intentional incorrect handling of waste by an individual potentially subjects that individual to serious penalties. None of the above listed chemicals is permitted in storm drains or to be pumped to the sewer collection system. If the above waste segregation plan is implemented, all other wastes should be placed in individual containers without mixing. If additional or different mixtures are desired, approval for mixing must be obtained from NREAO. Work centers must exercise caution to ensure that:

1. Incompatible wastes are not placed in the same container, and
2. HW is not placed in an unwashed container that previously held an incompatible material.

A Waste Generation Summary Log must be maintained by each generating work center. Entries on that record will include the originator container number, the accumulation start date, the name of the waste, the quantity, date additional waste was added to the container, the initials of the person adding the waste, the date the container is transferred out of work station, and its designation.

Unopened containers of unused hazardous materials which are no longer needed by a work center will be turned to Supply on DD Form 1348-1, Disposal Turn-in Document (DTID). Unopened, unused

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hazardous materials that have obviously become unusable and cannot be disposed in a drum at a collection point will be turned in to NREAO for disposal as a hazardous waste.

When materials have been opened or partially used and the remainder of the material is not needed by the work center, the work center will containerize the material as segregated hazardous waste for turn-in to NREAO.

4.2.2 Container Labeling Requirements: Each container must be clearly labeled with the words "HAZARDOUS WASTE" and clearly marked with the date that initial accumulation began (it should be noted that containers at satellite accumulation points are not dated until the container is full). Preprinted HW warning labels are available from NREAO. All entries on the label must be made using an indelible marker. All containers shall have a preprinted label indicating MCRD, Parris Island HW spill response procedures. Labels are available from the NREAO.

4.2.3 Hazardous Waste Containers: All containers used for HW must be authorized by DOT for transportation of the specific waste. The container must be in good condition with no dents or corrosion, and the closure rings must be tightly fitted with closure ring bolt facing downward. The container should always remain closed except when necessary to add or remove waste. The container must be made of or lined with a material which will not react with and is otherwise compatible with the HW. Each container must be handled in such a way as to prevent rupture or leakage of the container.

Containers may be reused one time for HW disposal under the following conditions:

1. A plastic liner must be used for wastes which are corrosive;
2. Drums cannot be liquid full and 130F (5% of container capacity must be left as outage);
3. Transportation is restricted to highway only, and
4. The drum once closed, must be held for at least 24 hours and inspected for leakage immediately prior to transportation.

4.3 HAZARDOUS WASTE GENERATORS

4.3.1 Satellite Accumulation Areas:

1. Paint Shop (Bldg. 450)
2. Electric Shop (Bldg. 450)
3. Tool Room (Bldg. 864)
4. A/C Shop (Bldg. 895)

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5. Pest Control
6. Weapons Battalion Safety-Kleen
7. Weapons Battalion "Motor T"
8. Weapons Battalion Paint Area
9. Weapons Battalion Steam Plant
10. 1st. Battalion S-4
11. 2nd. Battalion S-4
12. 3rd. Battalion S-4
13. 4th. Battalion S-4
14. Support Battalion S-4
15. Dry Cleaners
16. Photo Lab
17. Tavisc Graphics
18. Depot Reproduction
19. Motor Transport
20. Bulk Fuel
21. Main Power Plant
22. Hobby Shop
23. Dental Clinic
24. Branch Medical Clinic
25. MWR Maintenance
26. Depot Armory
27. Depot Band
28. NBC Area
29. FTU (Repelling Tower)
30. Marina
31. Golf Course Maintenance Area
32. Weapons Training Liaison Office
33. Wastewater Treatment Plant
34. Ice Plant

4.3.2 Waste Oil Generation: Although waste oil is not considered to be a hazardous waste by the South Carolina Department of Health and Environmental Control, it must be checked for solvent contamination. NREAO uses CLOR-D-TECT test kits to test for solvent contamination in waste oil produced throughout MCRD, Parris Island. Motor Transport is the largest generator of waste oil on the Depot. Waste oil is also generated at the Auto Hobby Shop and in very small amounts at the Power Plant and the Steam Plant.

4.3.3 Other Generated Hazardous Waste: Some hazardous wastes are not generated at an area with a satellite accumulation area. These wastes are delivered directly to NREAO after generation. A generator waste index identifies all wastes at the end of this chapter. See the "Generator Waste Index Retrieval" for MCRD Parris Island, SC for this section's text.

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4.4 HANDLING OF EMPTY CONTAINERS

Work center personnel will make every reasonable effort to fully use the contents of containers to ensure that any residue left within the container is less than one inch. A container with less than one inch of residue of waste other than acutely HW may be disposed as nonhazardous waste. A container that has held a HW in the form of a compressed gas is empty when pressure in the container approaches atmospheric pressure. To the extent practicable, drums that contain a given hazardous material will be reused to dispose of that material when it becomes a hazardous waste. Containers that previously contained an acute HW listed in 40 CFR 261.33(e), or containers with one inch or more of residue of any hazardous waste, are themselves a HW unless they are triple rinsed to clean and purge the residue from the container. Triple rinsing requires the use of a solvent capable of removing the residue from the container. A quantity of solvent equal to 10% of the container capacity must be used for each of the three times. After rinsing, the solvent must be containerized for disposal as a HW. Empty containers will be turned into DRMO via NREAO using a DD Form 1348-1.

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GENERATOR WASTE INDEX RETRIEVAL
MCRD, PARRIS ISLAND
EPA ID NO.: SC6170022762

MAILING ADDRESS: COUNTY: BEAUFORT
COMMANDING GENERAL DISTRICT: LOW COUNTRY
MARINE CORPS RECRUIT DEPOT/EASTERN RECRUITING REGION
PO BOX 19001
PARRIS ISLAND SC 29905-9001
ADDED: 12/10/84

GENERATOR WASTE INDEX : SIC : 9711

001 WASTE PAINT
WASTE CODES : D001
002 WASTE LUBRICATING OIL
WASTE CODES : 8888
003 BERYLLIUM COMPOUND NOS
WASTE CODES : D004
004 SULFURIC ACID
WASTE CODES : D002
005 CALCIUM HYPOCHLORITE
WASTE CODES : D002
006 MEDICINES NOS
WASTE CODES : 6666
007 FUEL AVIATION TURBINE ENGINE
WASTE CODES : D001
008 SOIL CONTAMINATED WITH GASOLINE
WASTE CODES : 6666
009 SOIL CONTAMINATED WITH PAINT
WASTE CODES : 6666
010 SYNTHETIC OIL NOS
WASTE CODES : 8888
011 XYLENE
WASTE CODES : D001
012 PESTICIDES NOS
WASTE CODES : 6666
013 SEALING COMPOUND
WASTE CODES : D001
014 MERCURY COMPOUND NOS
WASTE CODES : D009
015 MERCURY BATTERIES
WASTE CODES : 6666
016 LITHIUM BATTERIES
WASTE CODES : D003
017 BATTERIES ELECTRIC STORAGE
WASTE CODES : D002

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018 KEROSENE CONTAMINATED
WASTE CODES : D001

019 SCALE REMOVER
WASTE CODES : D002

020 BATTERY NICKEL-CADMIUM
WASTE CODES : D002 9999

021 PHOSPHORIC ACID
WASTE CODES : D002

022 TETRACHLOROETHYLENE
WASTE CODES : F002

023 1-1-1 TRICHLOROETHANE
WASTE CODES : F001

024 LITHIUM BROMIDE SOLUTION
WASTE CODES : 6666

025 SODIUM AZIDE
WASTE CODES : P105

026 ION EXCHANGE RESIN
WASTE CODES : 6666

027 METHYL ALCOHOL
WASTE CODES : F003

028 POTASSIUM PHOSPHATE MAGNESIUM SULFATE SOLUTION
WASTE CODES : 6666

029 COMPOUND CLEANING LIQUID
WASTE CODES : D002

030 WASTE PAINT SOLID
WASTE CODES : D001

031 FILTERS TETRACHLOROETHYLENE
WASTE CODES : F002

034 MAGNESIUM BATTERIES
WASTE CODES : D002

035 ALGICIDE (TY-ION)
WASTE CODES : 6666

036 TRICHLOROTRIFLOURETHANE
WASTE CODES : F002

037 CLEANER LUBRICANT AND PROTECTANT
WASTE CODES : F002

038 PHOTO LAB CHEMICALS
WASTE CODES : D002

039 DRUMS EMPTY (NON-RINSED)
WASTE CODES : 6666

040 WASTE PAINT LIQUID
WASTE CODES : F003 F005 D001 D007

041 SOIL CONTAMINATED WITH PCB
WASTE CODES : 6666

042 WASTE LUBRICATING OIL
WASTE CODES : 8888 F001 F003

043 SOIL CONTAMINATED WITH PETROLEUM NAPHTHA

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WASTE CODES : 6666
044 LAB CHEMICALS NOS
WASTE CODES : 6666
045 SOIL CONTAMINATED WITH OIL
WASTE CODES : 6666
046 CLEANER LUBRICANT AND PROTECTANT (SOLID)
WASTE CODES : F002
047 ASBESTOS CONTAINING MATERIAL
WASTE CODES : 6666
048 SOIL CONTAMINATED WITH DIESEL FUEL
WASTE CODES : 6666
049 GLAZING COMPOUND
WASTE CODES : D001
050 WATER CONTAMINATED WITH MERCURY
WASTE CODES : D009
051 WATER/OIL AND FUEL CONTAMINATED WITH CADMIUM
WASTE CODES : D006
052 ABSORBENT MATERIAL CONTAMINATED WITH JP-5 FUEL
WASTE CODES : 6666
053 ABSORBENT MATERIAL CONTAMINATED WITH OIL
WASTE CODES : 6666
054 PVC PIPE WITH OIL RESIDUE
WASTE CODES : 6666
055 SOIL/PVC PIPE/ABSORBENT WITH OIL RESIDUE
WASTE CODES : 6666
056 PETROLEUM NAPHTHA LIQUID
WASTE CODES : D001
057 WASTE PAINT CANS
WASTE CODES : D001 D007 D008
058 WASTE DICHLOROMETHANE
WASTE CODES : F002
059 CHROMIC ANHYDRIDE
WASTE CODES : D007
060 EMPTY CONTAINERS
WASTE CODES : 6666
061 ASPHALT MATERIAL
WASTE CODES : D001
062 WASTE PAINT LIQUID
WASTE CODES : D007 D008 F005 D001 F003
063 WASTE PAINT LIQUID
WASTE CODES : F002 F005 F003 D001 D007
064 ABSORBENT CONTAMINATED WITH TETRACHLOROETHYLENE
WASTE CODES : F002
065 WATER OIL FUEL
WASTE CODES : D001
066 WASTE OIL CONTAMINATED WITH SOLVENTS
WASTE CODES : F002 F003 F005

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067 CONCRETE CURING COMPOUND
WASTE CODES : F003 F005 D001

068 RAGS CONTAMINATED WITH OIL
WASTE CODES : 6666

069 WATER, OIL, FUEL
WASTE CODES : D007

070 CLEANER LUBRICANT AND PRESERVATIVE (RAGS)
WASTE CODES : 6666

071 SOIL CONTAMINATED WITH SULFAMIC ACID
WASTE CODES : 6666

072 ULTRASONIC COUPLANT ADHESIVE/SEALANT
WASTE CODES : F002

073 PCB TRANSFORMERS, PCB CONTAMINATED OIL, PCB CONTAMINATED
ABSORBENT, CLOTHING AND SAMPLING EQUIPMENT
WASTE CODES : 6666

074 HYDROCHLORIC ACID, LIQUID
WASTE CODES : D002

075 POLYMER, CRYSTAL MATERIAL
WASTE CODES : 6666

076 STYRENE ACRYLATATE
WASTE CODES : 6666

077 UNKNOWN LIQUID CONTAINING SOLVENTS
WASTE CODES : F002

078 SOIL/ABSORBENT CONTAMINATED WITH OIL AND SOLVENTS
WASTE CODES : F002, F003, F005, D007, D008

079 OIL CONTAMINATED WITH FREON
WASTE CODES : F002

080 PAINT CHIPS (SOLID)
WASTE CODES : D007, D008

081 TETRACHLOROETHYLENE LIQUID (STILL BOTTOMS)
WASTE CODES : F002, D039

082 TETRACHLOROETHYLENE FILTERS
WASTE CODES : F002, D039

083 FILM FIXER AND DEVELOPER SOLUTION
WASTE CODES : D002, D011

084 RAGS CONTAMINATED WITH MINERAL SPIRITS
WASTE CODES : 6666

085 SOIL/ABSORBENT MATERIAL CONTAMINATED WITH AVIATION GASOLINE
WASTE CODES : D007, D008

086 BOWLING ALLEY CONDITIONER WITH XYLENE
WASTE CODES : F003

087 SOIL CONTAMINATED WITH OIL
WASTE CODES : D007, D008

088 SOIL/ABSORBENT CONTAMINATED WITH TETRACHLOROETHYLENE
WASTE CODES : F002, D039

089 INSPECTION PENETRANT
WASTE CODES : F002

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090 FIRE EXTINGUISHERS EMPTY
WASTE CODES : 6666

091 RAGS CONTAMINATED WITH SOLVENTS
WASTE CODES : F001, F002, F003, F005

092 OIL WITH SLUDGE
WASTE CODES : 6666

093 DIELECTRIC FLUID (NON-PCB)
WASTE CODES : 6666

094 SAMPLE BOTTLES CONTAMINATED WITH #6 OIL
WASTE CODES : 6666

095 WATER, OIL, FUEL
WASTE CODES : D001, D018, D008, F005

096 SOIL CONTAMINATED WITH LEAD, BENZENE, TOLUENE AND XYLENE
WASTE CODES : D008, D018

097 SOIL CONTAMINATED WITH CHROMIUM, LEAD AND CHLORDANE
WASTE CODES : D007, D008

098 WASTE ELECTROSTATIC MASTER CONVERSION SOLUTION WITH POTASSIUM
HEXACYANOFERRATE
WASTE CODES : 6666

099 WATER/ANHYDROUS AMMONIA WITH SODIUM HYDROXIDE AND SODIUM
CHROMATE
WASTE CODES : D002, D007

100 ACETIC ACID
WASTE CODES : D002

101 DEGREASING SOLVENT
WASTE CODES : D001, F001, F002, F003, F005, D035

102 SOIL CONTAMINATED WITH LEAD, BENZENE, TOLUENE AND XYLENE
WASTE CODES : F002, F003, F005, D007, D008

103 LAB CHEMICALS : METHYL ALCOHOL, PETROLEUM ETHER, ACETONE,
ACETALDEHYDE, DENATURED ALCOHOL
WASTE CODES : D001, U001, U002

104 LAB CHEMICALS : PHOSPHORIC ACID, HYDROCHLORIC ACID
WASTE CODES : D002

105 LAB CHEMICALS : BARIUM CHLORIDE, FERRIC CHLORIDE, SODIUM
DICHROMATE
WASTE CODES : D005, D007

106 LAB CHEMICALS : CHLOROFORM
WASTE CODES : U044

107 SOIL CONTAMINATED WITH CHLOROFORM, LEAD, CHROMIUM,
DICHLOROETHANE, ARSENIC
WASTE CODES : F002, F003, F005, D007, D008, D018

108 WATER CONTAMINATED WITH LEAD, BENZENE, TOLUENE AND XYLENE
WASTE CODES : F002, F003, F005, D007, D008

109 PAPER, RAGS CONTAMINATED WITH PAINT THINNER
WASTE CODES : D007, D008, F002, F003, F005, D018

110 WASTE OIL
WASTE CODES : D001

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- 111 DIBROM-14 PESTICIDE
WASTE CODES : D002
- 112 WASTE PETROLEUM NAPHTHA
WASTE CODES : D001, D039
- 113 USED OIL FILTERS CONTAINING OIL
WASTE CODES : D001
- 114 RINSEATE WITH DIBROM-14, PETROLEUM NAPHTHA AND ALCOHOL
WASTE CODES : D002
- 115 RAGS CONTAMINATED WITH TETRACHLOROETHYLENE, 1,1,1-
TRICHLOROETHYLENE AND PETROLEUM NAPHTHA
WASTE CODES : F002, D039, D007, D035
- 116 WASTE PAINT RELATED MATERIAL (LIQUID) WITH SOLVENTS
WASTE CODES : F003, F005, D001, D007, D035
- 117 WASTE PETROLEUM NAPHTHA
WASTE CODES : D001, D018, D039
- 118 #6 OIL WITH KEROSENE, GREASE, DIRT AND WATER
WASTE CODES : D001
- 119 RAGS CONTAMINATED WITH FIXER/DEVELOPER SOLUTION
WASTE CODES : D011
- 120 ABSORBENT WITH GASOLINE
WASTE CODES : D007, D008, F002, F003, D018
- 121 RAGS CONTAMINATED WITH MINERAL SPIRITS AND CLEANER, LUBRICANT
AND PRESERVATIVE
WASTE CODES : D007, D008, F002, F003, D018
- 122 RAGS CONTAMINATED WITH TETRACHLOROETHYLENE
WASTE CODES : F002, D039
- 123 SOIL CONTAMINATED WITH TETRACHLOROETHYLENE
WASTE CODES : F002, D039
- 124 WASTE PAINT RELATED MATERIAL (LIQUID) WITH SOLVENTS
WASTE CODES : D001, D008, F002, F003, F005
- 125 WASTE FILM FIXER/DEVELOPER SOLUTION
WASTE CODES : D011
- 126 USED OIL FILTERS WITH OIL
WASTE CODES : D006, D007, D008
- 127 ABSORBENT CONTAMINATED WITH GASOLINE
WASTE CODES : F003, F005, D008, D018, D007
- 128 RAGS WITH OIL, FUEL, PETROLEUM NAPHTHA, KEROSENE AND SOLVENTS
WASTE CODES : F001, F002, F003, F005, D018
- 129 RAGS, SOIL WITH OIL, FUEL, PETROLEUM NAPHTHA, KEROSENE AND
SOLVENTS
WASTE CODES : F001, F002, F003, F005, D018
- 130 WASTE ELECTROSTATIC MASTER CONVERSION SOLUTION
WASTE CODES : F002, D039
- 131 WASTE MULTILITH ELECTROSTATIC DISPERSANT AND MASTER DEVELOPER
WASTE CODES : F002, D039
- 132 SAMPLE VIALS CONTAINING SULFURIC ACID, MERCURY SULFATE AND
SILVER SULFATE

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WASTE CODES : D002, D009, D011
133 RAGS WITH PETROLEUM NAPHTHA, OIL, 111-TRICHLOROETHANE
WASTE CODES : F002, F005, D018, D008, D007
134 KEROSENE CONTAMINATED WITH OIL, GREASE, DIRT AND WATER
WASTE CODES : D001, D018
135 RAGS, PAPER, ETC. WITH PAINTS AND SOLVENT/THINNERS
WASTE CODES: D007, D008, D018, F002, F008
136 WASTE DENTAL AMALGAM CONTAINING MERCURY AND SILVER
WASTE CODES: D009, D011
137 FREON SOLVENT WITH XYLENES, ETHYL ACETATE, METHYL ALCOHOL
WASTE CODES: D001, F003, D018
138 ABSORBENT WITH DIBROM-14, PETROLEUM NAPHTHA & ISOPROPAL
ALCOHOL WASTE CODES: F003, F005, D018
139 WASTE DIBROM-14, PETROLEUM NAPHTHA & ISOPROPYL ALCOHOL
WASTE CODES: D001, F002, F003, F005, D018
140 SOIL WITH WASTE PAINT RELATED MATERIAL & SOLVENT/THINNERS
WASTE CODES: D007, D008, D018, F002, F005
141 SPENT MAGNESIUM BATTERIES
WASTE CODES: D007
142 GASOLINE AND DIESEL FUEL MIXTURE
WASTE CODES: D001, F003, F005, D018, D008
143 GASOLINE/DIESEL FUEL MIXTURE (LIQUID) WITH ABSORBENT
WASTE CODES: D001, F003, F005, D018, D008
144 FLOAT SWITCHES CONTAINING MERCURY
WASTE CODES: D009
145 RAGS WITH TETRACHLOROETHYLENE AND PETROLEUM NAPHTHA
WASTE CODES: F005, F003, D009, D018
146 SLUDGE/CHIPS CONTAINING PAINT RELATED WASTE
WASTE CODES: D001, F002, F003, F005, D018
147 OIL WITH AMMONIA AND SOLVENT/DEGREASERS
WASTE CODES: F002, F003, F005, D018, D038
148 VACUUM PUMP OIL WITH FREON, METHYLENE CHLORIDE & XYLENE
WASTE CODES: F002, F003, F005, D018, D038
149 USED OIL WITH SOLVENT & DEGREASERS
WASTE CODES: F002, F003, F005, F001, D039
150 USED OIL WATER & FUEL
WASTE CODES: F003, F005, D006, D007, D018
151 SOIL WITH #6 OIL AND METHYLENE CHLORIDE
WASTE CODES: F002
152 SOIL CONTAMINATED WITH OIL
WASTE CODES: D038
153 GAS/DIESEL FUEL MIXTURE CONTAINING SOLVENT/DEGREASERS
WASTE CODES: D001, F001, F002, F003, F005
154 METHYL ISOBUTYL KETONE
WASTE CODES: F003
155 SOIL WITH PAINT RELATED MATERIAL AND SOLVENT/DEGREASERS
WASTE CODES: D007, D008, D018, F002, F005

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- 156 INDUSTRIAL DETERGENT WITH SOLVENT MATERIAL
WASTE CODES: F001, F002, F003, F005, D018
- 157 RECHARGEABLE BATTERIES WITH SULFURIC ACID & ELECTROLYTE
WASTE CODES: D002, D008
- 158 PAINT CANS WITH SEMI-SOLID, SOLID & LIQUID PAINT MATERIAL
WASTE CODES: D001, D008, D007, F003, F005
- 159 ELECTROSTATIC DISPERSANT DEVELOPER WITH PERCHLOROETHYLENE
WASTE CODES: F002, D039, D018
- 160 ABSORBENT WITH OIL, FUEL, PETROLEUM NAPHTHA, KEROSENE &
SOLVENTS
WASTE CODES: F001, F002, F003, F005, D018
- 161 SOIL, ABSORBENT, ETC. WITH USED OIL, FUEL, KEROSENE, &
SOLVENTS
WASTE CODES: F001, F002, F003, F005, D018
- 162 WATER WITH OIL, SOLVENTS, GASOLINE, DIESEL FUEL & AMMONIA
WASTE CODES: F001, F002, F003, F005, D018
- 163 SPENT LEAD ACID BATTERIES
WASTE CODES: D002, D008
- 164 SOIL, SAND CONTAMINATED WITH OILS AND FUELS
WASTE CODES: F003, F005, D018, D008, D007
- 165 WATER CONTAMINATED WITH PAINT RELATED MATERIAL
WASTE CODES: F002, F003, F005, D018, D035
- 166 RAGS CONTAMINATED WITH WATER/ANTI-FREEZE SOLUTION
WASTE CODES: D006, D007, D008
- 167 WASTE COLOR PHOTOGRAPHY MACHINE SOLUTION
WASTE CODES: D018, F005, D008, D011
- 168 WATER WITH TEST TANK SOLUTION AND USED ANTI-FREEZE
WASTE CODES: D006, D007, D008
- 169 WASTE PHOTOGRAPHIC FILM AND PHOTOGRAPHIC PAPER
WASTE CODES: D011
- 170 WASTE PAINT RELATED MATERIAL (LIQUID) WITH SOLVENT/THINNER
WASTE CODES: D001, F002, F003, F005, D018
- 171 RAGS, CLP LIQUID WITH NAPHTHA, OIL, AND 1,1,1-TRICHLOROETHANE
WASTE CODES: F002, F005, D018, D008, D007
- 172 WASTE DEGREASING SOLVENTS
WASTE CODES: D001, F001, F002, F003, F005
- 173 ABSORBENT CONTAMINATED WITH GASOLINE
WASTE CODES: D018, D008
- 174 SULFAMIC ACID, POWDER
WASTE CODES: D002
- 175 WASTE ETHYLENE GLYCOL
WASTE CODES: D006, D007, D008
- 176 USED OIL WITH SOLVENT/DEGREASERS & FUEL
WASTE CODES: D001, F001, F003, F005, D018
- 177 SOIL WITH PAINT RELATED MATERIAL AND SOLVENT/THINNERS
WASTE CODES: D008, F002, F003, F005, D018
- 178 OIL WITH 111-TRICHLOROETHENE & BENZENE

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WASTE CODES: D001, F002, F005, D008, D006
179 ABSORBENT WITH OIL & TOLUENE
WASTE CODES: F005, D008, D006
180 PAINT RELATED MATERIAL & EPOXY RESIN
WASTE CODES: D008, F002, F003, F005, D018
181 METHYL ETHYL KETONE WITH PAINT
WASTE CODES: F005
182 USED OIL CONTAMINATED WITH ANTI-FREEZE
WASTE CODES: D006, D007, D008
183 USED OIL WITH SOLVENT/DEGREASERS
WASTE CODES: F001, F003, F005, D018, D008
184 6 VOLT LANTERN BATTERIES
WASTE CODES: D009
185 RAGS WITH NAPHTHA, OILS, 1,1,1-TRICHLOROETHANE, N-BUTYL ACETATE
WASTE CODES: F002, F005, D008, D007
186 RAGS WITH OILS, FUELS, & SOLVENT/DEGREASERS
WASTE CODES: F001, F003, F005, D007, D008
187 RAGS WITH OILS, FUELS, & SOLVENT/DEGREASERS
WASTE CODES: F001, F003, D006, D007, D008
188 FILTER MATERIAL WITH TRICHLOROFLUOROMETHANE & OIL
WASTE CODES: F001
189 USED SANDBLASTING MEDIA
WASTE CODES: D006, D007, D008
190 SOIL CONTAMINATED WITH GASOLINE & DIESEL FUEL
WASTE CODES: D018, D008
191 ABSORBENT CONTAMINATED WITH GASOLINE & DIESEL FUEL
WASTE CODES: D018
192 OIL CONTAMINATED WITH SOLVENT/DEGREASERS
WASTE CODES: F001
193 SOIL CONTAMINATED WITH DIESEL FUEL
WASTE CODES: D018
194 WASTE ALIPHATIC POLYURETHANE THINNER
WASTE CODES: D001, F003, F005
195 WASTE PAINT CHIPS, PAPER, & CLOTH
WASTE CODES: D006, D007, D008
196 WASTE COLOR PHOTOGRAPHY MACHINE SOLUTION
WASTE CODES: D011, D029
197 ABSORBENT, SAMPLING MATERIAL WITH OIL, FUELS, SOLVENTS
WASTE CODES: F003, D006, D007, D008
198 ABSORBENT CONTAMINATED WITH OILS & FUELS
WASTE CODES: D006, D007, D008, D018
199 WATER WITH PAINT RELATED MATERIAL & FLOCCULATING MATERIAL
WASTE CODES: F002, F003, D007, D008
200 WASTE MASTER DEVELOPER & ELECTROSTATIC DISPERSANT
WASTE CODES: D001
201 WOOD SIDING CONTAINING LEAD BASED PAINT
WASTE CODES: D008

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- 202 SOIL, GLASS CONTAMINATED WITH SOLVENT/DEGREASERS
WASTE CODES: F003, D006, D007, D008
- 203 ABSORBENT, STEEL CONTAINERS CONTAMINATED WITH MERCURY
WASTE CODES: D009
- 204 ABSORBENT, SOIL CONTAMINATED WITH DIESEL FUEL & GASOLINE
WASTE CODES: D018
- 205 SOIL WITH PAINT, SOLVENT/THINNERS & MINERAL SPIRITS
WASTE CODES: F003, D008
- 206 GAS MASK FILTERS CONTAINING CHROMIUM
WASTE CODES: D007, D011
- 207 OIL CONTAMINATED WITH DIESEL FUEL, AMMONIA & WATER
WASTE CODES: D007, D011
- 208 WASTE KEROSENE CONTAMINATED WITH OIL, GREASE, WATER & DIRT
WASTE CODES: D018
- 209 VINYL TYPE BOOTH COATING
WASTE CODES: D001, F003
- 210 WASTE PAINT RELATED MATERIAL WITH SOLVENT/THINNERS & ALCOHOL
WASTE CODES: D001, D007, D008, F003
- 211 WASTE NICKEL-CADMIUM BATTERIES
WASTE CODES: D006
- 212 10 PERCENT COPPER NAPHENATE
WASTE CODES: D001
- 213 USED OIL CONTAMINATED WITH SOLVENT/DEGREASERS
WASTE CODES: F003
- 214 WASTE OIL, KEROSENE, GASOLINE, & DIESEL FUEL
WASTE CODES: D001, D018
- 215 RAGS WITH OILS, FUELS, KEROSENE, SOLVENTS & PETROLEUM NAPHTHA
WASTE CODES: D006, D007, D008, F003
- 216 ABSORBENT WITH OILS, FUELS, KEROSENE, SOLVENTS, & NAPHTHA
WASTE CODES: D006, D007, D008, F003
- 217 WATER CONTAMINATED WITH LEAD
WASTE CODES: D008

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5.0 REQUIREMENTS FOR STORAGE OF HAZARDOUS WASTE

A full quantity generator may collect hazardous waste in an environmentally safe container on-site for 90 days or less without a permit. The date upon which each period of accumulation begins is clearly marked on each container and visible for inspection. While being collected on-site, each container is labeled or marked with the words "HAZARDOUS WASTE".

5.1 SATELLITE HW ACCUMULATION AREAS

A satellite HW accumulation area is an area in which a generating work center may accumulate as much as 55 gallons of HW or one quart of acutely HW in containers at or near the point of generation without regard to the 90-day storage limitation. The nearest generation point of center will be the work center generating the waste. The South Carolina Department of Health and Environmental Control allows a generating work center to have one satellite accumulation areas each designated as a collection point for certain waste stream.

5.1.1 Requirements for Satellite Accumulation Areas:

In order to be exempt from the 90-day storage limitation, the following requirements must be met by the generating work center:

1. The container holding the HW must be in good condition or if it begins to leak, the HW must be transferred to a container that is in good condition;
2. The container must be made of or lined with materials which are compatible with the waste;
3. The container must be kept closed except when it is necessary to add or remove waste; and
4. The container must be marked with the words "HAZARDOUS WASTE" or with the words that identify the contents of the container.

Once the generating work center accumulates waste in excess of 55 gallons of HW or one quart of acutely HW, the waste container must be dated and the generator must transfer the excess waste to the Hazardous Waste Storage Building (Bldg. 953) within three (3) days. It is the responsibility of each generating work center to ensure that the above requirements are met. The Hazardous Waste Manager should conduct weekly inspections to ensure compliance and take any necessary action. Failure to do so may result in a violation and possible penalties. A generation log for each satellite accumulation area should be maintained and retained for at least three years.

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5.1.2 Existing Satellite Accumulation Areas: The following areas would fall under the satellite accumulation requirements:

Armory (Safety-Kleen)	A/C Shop
Weapons Cleaning Facility	Pest Control
Branch Medical	Weapons Battalion Paint Area
Dental Clinic	Weapons Battalion "Motor T"
Depot Dry Cleaner	TAVISC Graphics
Paint Shop	Bulk Fuel
Photo Lab	NBC Area
Depot Reproduction	FTU Area
Depot Band	Marina
Hobby Shop	Golf Course Maintenance Area
MWR Maintenance	WWTP
Motor Transport	Ice Plant
Main Power Plant	Electric Shop (Bldg. 450)
Weapons Steam Plant	Tool Room (Bldg. 864)
1st Battalion	
2nd Battalion	
3rd Battalion	
4th Battalion	
Support Battalion	

5.2 THE HAZARDOUS WASTE STORAGE BUILDING (Bldg. 953)

The Hazardous Waste Storage Building (Bldg. 953) is a less-than-90 day storage facility. A less-than-90 day storage area is an area in which a full quantity generator can store HW for 90 days or less without a permit.

5.2.1 Requirements for the Hazardous Waste Storage Building (Bldg. 953): Sufficient aisle space (i.e., 30-36 inches) must be maintained around all HW to allow for movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area where HW is located. Care must be given to ensure that each container of HW is, at all times, positioned so that the HW label with the accumulation start date is clearly visible for inspection. Waste stored in the Hazardous Waste Storage Building (Bldg. 953) must be segregated in a fashion that will prevent incompatible wastes from mixing in the event of a spill or leak.

A sign must be posted reading "DANGER - UNAUTHORIZED PERSONNEL KEEP OUT" on the entrance to the Hazardous Waste Storage Building (Bldg. 953) in a size legible from a distance of 25 feet. In addition, "NO SMOKING OR OPEN FLAME" signs should also be posted.

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The Hazardous Waste Manager will inspect the Hazardous Waste Storage Building (Bldg. 953) weekly looking for leaks, tightly closed containers, container condition, compatibility/segregation of waste, required labels, aisle space, 90 day maximum accumulation period compliance, and fire and spill control equipment. This record should identify the items to be inspected, provide space for the date and time of the inspection, the name of the inspector, observations made, and the date and nature of any corrective actions taken as a result of the inspection. A storage log of all stored HW should be retained for at least three years.

The following items are required and must be properly maintained for the Hazardous Waste Storage Building (Bldg. 953).

1. The area must have portable fire extinguishers if ignitable waste is stored.
2. Fire and spill control equipment and decontamination equipment as needed for emergency response for the types of wastes stored must be maintained at each area.
3. A device, such as a telephone or hand-held two way radio, capable of summoning emergency assistance from local police departments, or state or local emergency response teams.
4. All personnel who use the area must have been trained in HW management.
5. Storage areas must be designed with a containment system so that any leak will be contained on-site.
6. Personal protective equipment which is adequate for the types of wastes stored must be available, in good condition, and properly used.
7. All spills or leaks of a HW or hazardous material must be promptly cleaned up.
8. NREAO must make arrangements to familiarize Depot security, base fire department, and emergency response teams with the location of the Hazardous Waste Storage Building (Bldg. 953) and the types of wastes to be stored in that facility.

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6.0 SHIPPING AND TRANSPORTATION

6.1 TRANSPORTATION

MCRD, Parris Island vehicles are used to transport HW from the satellite accumulation areas to the Hazardous Waste Storage Building (Bldg. 953). Then, an off-site DRMO contractor transports the waste to a TSDF.

6.2 OFF-SITE TRANSPORTATION

Shipping and transportation of hazardous waste off-site requires use of personnel trained in the U.S. Department of Transportation (DOT) hazardous materials transportation regulations. Implementation of those regulations requires selection of the proper DOT shipping description; use of a DOT authorized container (or transport vehicle in the case of bulk shipments); use of specific container markings and labels, vehicle loading procedures, placards, and manifests.

Transportation of HW off-site of MCRD, Parris Island will only be accomplished through licensed transporters via DRMO. DRMO is responsible for ensuring that the transporters meet South Carolina Department of Health and Environmental Control, EPA, and DOT requirements.

Also, MCRD, Parris Island will not receive any HW from an off-site source.

6.2.1 Shipping Description: In some cases, hazardous wastes must be reclassified or described differently to satisfy the shipping and transportation requirements. For example, the characteristic of ignitability for liquid wastes includes liquids with a flash point less than 140 degrees F; liquids in that category span two DOT hazard classes, Flammable Liquid (flash point less than 100 degrees F) and Combustible Liquid (flash point at or above 100 degrees F but less than 200 degrees F). Similarly, some listed wastes must be reclassified since DOT does not recognize all chemical names as proper shipping names.

When working with waste materials assigned as NSN, the Hazardous Materials Information System (HMIS) is often a valuable aid in determining the shipping and transportation requirements for a specific waste; in other cases, the DOD Hazardous Materials Information Center may be of assistance. In all cases, NREAO must determine the appropriate DOT hazard class, proper shipping name, and UN/NA identification number for each hazardous waste.

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When a hazardous waste is also a hazardous substance, NREAO must also determine whether a reportable quantity of the substance is contained within a single container.

6.2.2 DOT Authorized Container: The most commonly used hazardous waste container in the Navy is the 55-gallon metal drum. Since MCRD, Parris Island does not function as an off-site transporter of hazardous waste, selection of the appropriate bulk transport vehicle is the responsibility of the hazardous waste transporter. However, NREAO must determine the appropriate DOT authorized container (which is compatible with the waste material) for each hazardous waste generated. Prior to offering hazardous waste for transportation, NREAO will inspect each container to assure that HW is properly classified, described, packaged, marked, and labeled; and that the container is in good condition and is not leaking.

6.2.3 Marking and Labeling of Containers: Each container of hazardous waste will be marked with the applicable proper shipping name, UN/NA identification number, name and address of the consignee/cosigner, and hazardous waste warning statement applied with an indelible marker. In the case of DOT specification containers, the specification number, identification of the container manufacturer, and where applicable, identification of the container reconditioner must also be on the drum. Hazardous waste containers will be labeled with the applicable DOT hazardous warning labels. The DRMO contractor will mark and label each container properly NREAO will check each drum to ensure the drums are ready for shipment.

6.2.4 Vehicle Loading Procedures: NREAO will ensure that, in cases where a container is being reused for transportation of hazardous waste, the container has been held for at least 24 hours after filling and that the containers are transported only by highway.

Each container of hazardous waste must be inspected for leakage, proper container, markings, and labels before it is loaded into a transport vehicle. The containers must be secured on the transport vehicle to prevent longitudinal or lateral movement during transportation.

When DOT non-reusable containers or single-trip containers are reused for shipment of hazardous wastes to treatment, storage, or disposal facilities (TSDFs), NREAO must arrange for MCRD, Parris Island hazardous waste handlers to load the transport vehicle unless the motor carrier contracted by DRMO has personnel with the

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vehicle who are designated to load the HW. In addition to observing the DOT rules for incompatible materials, shipments must be loaded in such a manner to prevent longitudinal and lateral movement and be sufficiently blocked or braced to prevent damage of containers.

6.2.5 Placarding: When 1,000 pounds or more of waste which is not classed as an ORM is loaded onto a transport vehicle for transportation on a public highway, the vehicle must be placarded with the appropriate DOT placard. The placards must be displayed on each end and each side of the vehicle while the waste is on the vehicle. The transporting contractor must affix the placards to the vehicle or NREAO will offer the required placards to the transporter.

6.2.6 Hazardous Waste Manifests: While South Carolina hazardous waste management regulations require the use of a manifest for all off-site shipments of hazardous waste, the blank manifest may be provided by the disposal firm. Generally in the Southeastern states a specific hazardous waste manifest format is not required. Certain states might require that a specific format is required for their states. Before sending HW to a state for the first time, it will be necessary to find out if there is an specific requirement for that state. South Carolina Department of Health and Environmental Control requires that its state created manifest be completed. This manifest must be prepared on the South Carolina Department of Health and Environmental Control form EPA 8700-22 (revised May 1989) according to the instruction included on the reverse side of these forms before transporting the waste off-site. The regulations specify minimum information to be included on all hazardous waste manifests. The requirements for preparation of the South Carolina Department of Health and Environmental Control hazardous waste manifest can be found under R.61-262.21 of the South Carolina Department of Health and Environmental Control regulations.

The manifest must consist of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility one copy each for their records and another copy for the facility to return to the generator.

6.2.7 Preparation of the Manifest: The uniform hazardous waste manifest is now in use. Caution must be exercised in preparing the manifest to assure that all copies are legible. Entries on the manifest must either be type written or printed manually. The manifest must contain the following information:

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1. The manifest document number which is the same on all copies for each hazardous waste shipment;
2. The generator's name, mailing address, telephone number, and the EPA identification number;
3. The name and EPA identification number of each transporter;
4. The name, address, and EPA identification number of the designated and an alternate facility, if any;
5. The description of the waste(s) (e.g., proper shipping name, etc.) required by regulations of the U.S. Department of Transportation in 49 CFR 172.101, 172.202, 172.203;
6. The total quantity of each hazardous waste by units of weight and the type and number of containers as loaded into or onto, the transport vehicle;
7. Be of such content and in such form as required by the laws and regulations applicable to hazardous waste manifests in the state where the waste is designated for treatment, storage, or disposal; or
8. If the state in which the waste is designated to be treated, stored, or disposed does not require a hazardous waste manifest, a Hazardous Waste Manifest designated by the South Carolina Department of Health and Environmental Control shall be completed for the shipment.

6.2.8 Manifest Copy Distribution: One copy of the manifest must be retained pending receipt of a signed copy of the manifest from the owner or operator of the designated facility. A copy of the manifest containing the handwritten acceptance signature and date of acceptance by the designated TSDF must be retained for three years by MCRD, Parris Island. If the hazardous waste is shipped to an out-of-state facility, then a fully completed manifest or verification of receipt of the shipment by the out-of-state facility shall be submitted to the South Carolina Department of Health and Environmental Control within 45 days of the date of the shipment.

6.2.9 Routing and Out-of-State Manifests: Some states require the use of a manifest issued by the state. This results in a requirement for two or more manifests to be prepared for a single shipment of hazardous waste that is to transit two or more states. Careful attention should be given to the various states' manifest requirements in selecting the routes for hazardous waste shipments to minimize the paperwork and associated regulatory compliance burdens.

6.2.10 Manifest Follow-Up Requirements: If a copy of the manifest with the hand written acceptance signature of the owner or operator of the designated TSDF is not returned within 35 days of the date

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the waste was accepted by the initial transporter, NREAO must promptly contact the transporter and/or the owner or operator of the designated facility to determine the status of the waste. Efforts to locate the waste and results of those efforts must be documented.

Written Exception Reports

If a signed copy of the manifest has not been received from the designated TSDF within 45 days of the date of acceptance of the waste by the transporter, a written exception report must be made. The exception report must include a cover letter explaining the efforts to locate the shipment of waste and the results of those efforts; a legible copy of the manifest which does not have confirmation must also be included with the exception report.

The exception report must be submitted to:

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste Management
2600 Bull Street
Columbia, SC 29201

Copies of all exception reports must be retained for three years.

Out-of-State Shipments

In the case of out-of-state shipments of hazardous waste for which a return copy of the manifest is not received within 45 days, NREAO must initiate notification of the appropriate regulatory agency of the state to in which the designated facility is located and the appropriate regulatory agency of a state which the shipment may have been delivered. Those actions and the results of those actions are to be included in the written exception report to South Carolina Department of Health and Environmental Control.

6.2.11 Use of DD Form 1348-1, Turn-In Document: All wastes to be turned in to Defense Reutilization and Marketing Office (DRMO) must be accompanied by a properly prepared DD Form 1348-1 Turn-in Document (DTID 1348-1). NREAO will review originator-prepared copies of DTID Form 1348-1 in relation to the preparation instructions to ensure accuracy and completeness.

6.2.12 Land Disposal Restriction Notifications: When manifesting wastes for which land disposal restrictions apply, MCRD, Parris Island must make appropriate written notifications and/or certifications to the TSDF receiving the wastes. These forms must

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accompany the manifest.

6.2.13 Display of Estimated Burden: All manifests must be accompanied by an Agency Display of Estimated Burden. This statement must include the following:

"Public Reporting Burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters and ten minutes for treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to: Chief, Information Policy Branch, PM-223, US Environmental Protection Agency, 401 M Street SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503."

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7.0 CONTINGENCY PLAN FOR SPILLS OF HAZARDOUS WASTE AND POLYCHLORINATED BIPHENOLS (PCBs)

7.1 INTRODUCTION AND GENERAL INFORMATION

7.1.1 Introduction: This contingency plan presents procedures and equipment maintained by MCRD, Parris Island in order to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or gradual release of hazardous waste or hazardous waste constituents, including Polychlorinated Biphenols (PCBs) substances to air, soil, or surface water. The provisions of this plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous wastes or hazardous waste constituents, including PCBs which could threaten human health or the environment. Responses to emergencies involving hazardous wastes and PCBs will be supervised by an emergency coordinator. The individuals listed in this plan as emergency coordinators have the authority to commit the necessary MCRD, Parris Island resources and have been trained in emergency response. Their authority to commit resources is delegated from the Commanding General.

7.1.2 General Information: MCRD, Parris Island serves as a Marine Corps Recruit Training Depot and also provides ancillary training services. The majority of hazardous wastes generated at MCRD, Parris Island are associated with vehicle maintenance and building and trade activities.

MCRD, Parris Island has one less-than-90 day hazardous waste storage area located in Building 953 (referred to as the Hazardous Waste Storage Building). Satellite accumulation areas are listed in 5.1.2.. MCRD, Parris Island does not treat or dispose of hazardous waste on the Depot and does not accept hazardous wastes from outside the Depot.

7.2 DISCOVERY AND NOTIFICATION

7.2.1 Discovery: In the event of a fire, explosion, or unplanned release of hazardous waste or hazardous waste constituents including PCBs, to air, soil or surface water, the following information must be immediately reported to MCRD, Parris Island's Emergency Coordinators:

1. The exact location of the fire, explosion or unplanned release of the hazardous waste or hazardous waste constituents to air, soil or surface water;
2. The estimated amount of the spill or size of the fire;
3. The direction of flow of the spill;

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4. The preliminary cause of the spill, explosion, or fire; and
5. Any other pertinent information.

The Emergency Coordinator will make federal, state, local, and Marine Corps required notifications, if necessary, after assessing the situation. The Emergency Coordinator will also notify the Depot Provost Marshal, Fire Department (Fire Chief) and the Naval Hospital, Port Royal as necessary. The phone numbers of these organizations in addition to other organizations are listed in section 7.2.3.

7.2.2 List of Emergency Coordinators: The following personnel are listed as MCRD, Parris Island's Emergency Coordinators and should be contacted, in order of priority (primary first, then alternate), in the event of an emergency:

Primary:

Mr. James Clark
Environmental Protection Specialist
Office Phone: (803) 525-2663
Home Phone: (803) 986-0263
Home Address: 4011 Dogwood Street, Shell Point
Beaufort, SC 29905

Alternate:

Ms. Johnsie Nabors
Natural Resources & Environmental Affairs Officer
Office Phone: (803) 525-2779/2630
Home Phone: (803) 522-0037
Home Address: 9 Redtip Road, Ladys Island, SC 29902

7.3 HAZARDS TO HUMAN HEALTH AND THE ENVIRONMENT

7.3.1 Emergency Coordinator Assessment: After being informed of the situation and making necessary notifications, the Emergency Coordinator must assess any potential hazards to human health or the environment either directly or indirectly as a result of a fire, explosion or release of a hazardous waste or PCBs. This assessment can be some or all of the following threats to human health and the environment:

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1. Fires/Explosions

- a) Fire causes release of toxic fumes,
- b) Fire spreads beyond area of ignition,
- c) Fire threatens off-site areas,
- d) Fire fighting agents result in contaminated runoff, and
- e) Imminent threat of explosion.

2. Spills/Leaks

- a) Fire hazard due to spilled material,
- b) Toxic fume hazard,
- c) Groundwater being threatened,
- d) Spill threatening off-site property, and
- e) Spill threatening navigable water.

7.3.2 Steps To Be Taken In The Event Of An Emergency: In the event of an emergency, the Emergency Coordinator must determine whether the emergency poses a major threat sufficient to activate the contingency plan. Appendix A of this section's text identifies the Emergency Equipment List and Appendix B of this section's text identifies a list of phone numbers that can be utilized in the event of an emergency. If it is determined that there is an imminent or actual emergency situation, the Emergency Coordinator or his designee must immediately:

- 1. Identify the exact source, character, amount, and aerial extent of any released material(s). This can be done by observation or review of facility records or manifests and, if necessary, by chemical analysis.
- 2. Determine both direct and indirect effects of the release, fire, explosion (the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents for controlling fire and heat-induced explosions).
- 3. Activate internal facility alarms or communication systems, where applicable, to notify MCRD, Parris Island's fire department and medical service.
- 4. Evacuate personnel in affected area, if necessary.
- 5. Notify appropriate Marine Corps authorities and/or state or local agencies with designated response roles if their help is needed.
- 6. If evacuation of off-Depot areas is advisable, the Emergency Coordinator shall immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated.

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7. The Emergency Coordinator shall notify the South Carolina Department of Health and Environmental Control using their 24-hour emergency number (803)253-6488. The report must include the following:
 - a) Name and telephone number of reporter;
 - b) Name and address of facility;
 - c) Time and type of incident(i.e., release, fire, etc);
 - d) Name and quantity of material(s) involved, to the extent known;
 - e) The extent of injuries, if any; and
 - f) The possible hazards to human health or the environment, outside the facility.
8. During an emergency, the Emergency Coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not recur or spread to other hazardous wastes at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.
9. If the facility stops operations in response to a fire, explosion, or release, the Emergency Coordinator must monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment whenever this is appropriate.
10. After an emergency, the Emergency Coordinator shall follow the post-emergency procedures outlined in Section 7.4.

7.4 POST EMERGENCY REQUIREMENTS

7.4.1 Emergency Coordinator Duties: Immediately after an emergency, the Emergency Coordinator shall provide for treatment, storage, or disposal of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. The Emergency Coordinator shall determine whether the recovered material is hazardous under federal and/or state laws. He may do this by observation, review of facility records or manifests, knowledge of process and, if necessary, by chemical analysis. All applicable disposal requirements of federal and state agencies for both hazardous and non-hazardous waste shall be followed.

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The Emergency Coordinator shall also ensure that:

No waste that may be incompatible with the released material is treated, stored, or disposed of until clean-up procedures are completed.

All emergency equipment listed in the contingency plan is cleaned and fit for its intended use prior to resumption of normal operation at the facility.

7.4.2 Post Emergency Notification Procedures: The Emergency Coordinator shall notify the South Carolina Department of Health and Environmental Control that the facility is in compliance with Section 7.4.1 of this section before operations are resumed.

The Emergency Coordinator shall note in the Command Duty Officer Log the time, date, and details of any incident that requires implementing the Contingency Plan. Within 15 days after the incident, the Emergency Coordinator shall submit a written report to the South Carolina Department of Health and Environmental Control which includes the following:

1. Name, address and telephone number of the owner or operator;
2. Name, address and telephone number of the facility;
3. Date, time and type of incident (e.g., fire, explosion);
4. Name and quantity of material(s) involved;
5. Extent of injuries, if any;
6. Assessment of actual or potential hazards to human health or the environment; and
7. Estimated quantity and disposition of recovered material generated by the incident and clean-up.

7.5 EVACUATION PLAN

The Emergency Coordinator and/or the Fire Chief are responsible for determining whether evacuations are necessary in the event of an emergency. Because of the relatively small quantities of hazardous waste and PCBs generated and stored at MCRD, Parris Island, it is unlikely that an evacuation of the entire Depot will necessary under any emergencies.

If the Emergency Coordinator and/or the Fire Chief determines that an evacuation of the Hazardous Waste Storage Building (Bldg. 953) or any of the satellite accumulation areas on the Depot is necessary, emergency personnel will personally notify occupants and instruct them to leave the immediate vicinity of the emergency. If

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evacuation of a large area is determined to be necessary, the Provost Marshal will issue verbal evacuation instructions over their public address system vehicle to alert personnel in the affected area.

Re-entry to the area will be allowed only when the Emergency Coordinator and/or Fire Chief gives an "all-clear" instruction.

7.6 AGREEMENTS WITH LOCAL AUTHORITIES

A copy of the Contingency Plan is maintained by the Fire Department, Provost Marshal, US Naval Hospital, and the Natural Resources and Environmental Affairs Office. These emergency organizations are all located within MCRD, Parris Island with the exception of US Naval Hospital which is in Port Royal, SC. In addition, "mutual aid" agreements are in effect with local fire departments and medical services in the event an emergency situation warrants outside assistance. Because of the relatively small quantities of hazardous waste generated and stored at MCRD, Parris Island, it is unlikely that outside emergency assistance will be necessary under any emergencies.

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<u>EMERGENCY EQUIPMENT</u>	<u>LOCATION</u>	<u>PHYSICAL DESCRIPTION/ CAPABILITIES</u>
Floating Boom	MCAS Beaufort	1000 meters/contains spills of oil on water
Absorbent Truck	Maint Sub-Pool	Transport of absorbent material to spill site
Pump w/ Hoses	Bldg. 864	200 gpm used for spills of oil and other lighter than water material
Pumper Trucks (3)	Fire Station	1 truck @ 1000 gal capacity 1 truck @ 750 gal capacity 1 truck @ 500 gal capacity
Portable Tank (1)	Fire Station	Portable 1500 gal tank
85 gal Recovery Drums	Bldg. 867	Used to overpack leaking 30 & 55 gal drums and to containerize spilled material and spill debris
Absorbent	Bldgs. 953 & 867	Used to solidify and contain spills/leaks from containers. DO NOT use on neutralized acids or caustics
Forklifts (2)	Depot Sub-Pool Bldg. 953	Drum removal/used to move drums of waste

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Excavator (1)	Depot Sub-Pool	that are leaking Spill clean-up/used to remove contaminated soil after a spill
Portable Fire Extinguishers (3)	HW Storage Bldg. 895 Satellite Acc Areas	Fire fighting/used on fire or explosion before Fire Department arrives

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Fire Department, MCRD, Parris Island-----525-3333/911
 Military Police, MCRD, Parris Island-----525-3444/911
 US Naval Hospital, Port Royal-----525-5600
 Ambulance, MCRD, Parris Island-----525-3311/911
 Maintenance (Emergency), MCRD, Parris Island---525-3145
 South Carolina Department of Health and Environmental
 Control 24 Hour Emergency Number----- (803) 253-6488
 South Carolina Department of Health and Environmental
 Control Dist. Office (Mon-Fri/8:30-5:00)-- (803) 522-9097
 EPA Regional Emergency Number----- (404) 881-4062
 EPA Hotline----- (800) 424-9346
 US Coast Guard----- (803) 724-4383
 Beaufort County Emergency Preparedness Agency---525-7353
 South Carolina Highway Patrol-----524-0163
 After Midnight - Until 9:00 AM -----524-4696
 Port Royal Police Department-----524-5123
 Beaufort County Sheriff Department-----524-2777
 SC Wildlife & Marine Resources Department-----524-9190
 Beaufort County Emergency Medical Service-----524-5673
 City of Beaufort Police Department-----524-3141
 Regional Poison Control Center----- (912) 355-5228
 Low Country Poison Treatment Center----- (800) 544-3445
 Palmetto Poison Center----- (800) 922-1117

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8.0 TRAINING

8.1 INTRODUCTION

Requirements for personnel training are outlined in OPNAVINST 5090.1 (Chapter 11). This chapter sets the Navy policy by stating that commanders/commanding officers of shore activities are responsible for training personnel involved in HW operations and that this training must meet federal and state requirements relative to the handling of HW. The Naval Energy and Environmental Support Activity (NEESA) has developed hazardous waste training modules to provide instruction in a hazardous waste facility operator's course. In conjunction, a "train the trainer" course has been developed by NEESA to teach instructors how to present the modules. Each activity now has the responsibility to ensure that it has these modules and a trained individual to teach them to activity personnel. The designated training coordinator is responsible for presenting the modules to activity personnel that work with hazardous waste.

8.2 PERSONNEL TRAINING

MCRD, Parris Island personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of South Carolina Hazardous Management Regulations. This program will be directed by the Depot Natural Resources and Environmental Affairs Officer and the Depot Hazardous Waste Manager, both of whom receive formal training in hazardous waste management procedures. The training will include instruction which teaches facility personnel hazardous waste management procedures including contingency plan implementation relevant to the positions in which they are employed.

At a minimum, the training program will ensure the facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

1. Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
2. Key parameters for automatic waste feed cut-off systems;
3. Communications or alarm systems;
4. Response to fires or explosives;
5. Response to ground-water contamination incidents; and
6. Shutdown of operations.

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Facility personnel will successfully complete a hazardous waste training program within six months after the effective date of their employment or assignment at the facility or to a new position at the facility, whichever is later. NREAO should keep aware of any courses that will be available within reasonable traveling distance and try to enroll personnel in such courses if possible. New employees will not work without supervision until they have completed the required hazardous waste management training. Facility personnel will take part in an annual review of the initial hazardous waste training. This training will be scheduled by the Natural Resources and Environmental Affairs Officer.

The following documents and records will be maintained by NREAO:

1. The job titles for each position at the facility related to hazardous waste management and the name of the employee filling each job;
2. A written job description for each position. This description may be consistent in its degree of specificity with descriptions for other similar positions in different areas, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;
3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed;
4. Records that document that the training or job experience required has been given to and completed by facility personnel.

Training records on current personnel will be kept until closure of the facility. Training records of former employees will be kept for a minimum of three years from the date the employee last worked at the facility. Personnel training records will accompany personnel transferred to other areas within the Depot.

8.3 TRAINING COURSE CONTENT

The Navy currently offers hazardous waste management and emergency response training courses. These courses are subject to change of name and/or content. Information on training courses and enrollment in them is available through SOUTHNAVFACENGCOM or NEESA.

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1. Hazardous Waste Management Course - The 2 day course for HW managers/coordinators focuses on the regulatory and technical aspects of the Navy/Marine Corps HW management program and its implementation at the shore activities. Course topics include current hazardous materials and waste management regulations and the Department of Defense and DoN policies on hazardous waste and materials management. The course provides a review of health and safety considerations and Department of Transportation hazardous material regulations as well as an overview of hazardous waste identification and information systems. The course also provides guidance on spill prevention and contingency plan development and implementation. Portions of this course are redundant with the Hazardous Waste Operations Course in a manner that is intended to highlight significant topics and common problem areas, requirements; and spill prevention plan and spill contingency plan development and implementation.
2. Hazardous Waste Facility Operations Course - The 4 day course for the managers provides knowledge in the safe and environmentally sound operations of hazardous waste facilities in accordance with all applicable EPA and DoN guidelines. The curriculum of the course includes hazardous materials and hazardous waste laws and regulations; DoN hazardous materials environmental management program policy; hazardous material identification and classification; information sources; health effects and personal safety; labeling, packaging, handling, storage, and transportation procedures; spill response planning; and emergency response procedures.
3. Hazardous Waste Training Program Development Course - The 3 day course will provide information on developing and implementing an Depot-wide "in-house" training program. The course will assist in developing an activity hazardous waste training program that meets Federal requirements. Participants will be exposed to alternative methods of successful instruction and the use of training tools and aids to effectively conduct "in-house" training sessions. This course is not designed to be a speech course nor will it cover general hazardous waste information found in the HWFOC or HWMC designated training coordinators in presenting the Hazardous Waste Facility Operators Course (HWFOC). Each student will receive a set of instruction modules, as well as an instructors manual. With these materials each student will be able to teach the HWFOC to personnel at their activity. The HWFOC provides knowledge in the safe and environmental sound operations of hazardous waste facilities

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- in accordance with all applicable EPA and DoN guidelines. The curriculum of the course includes hazardous materials and hazardous waste laws and regulations; DoN hazardous materials environmental management program policy; hazardous material identification and classification; information sources; health effects and personal safety; labeling, packaging, handling, storage, and transportation procedures; spill response planning; and emergency response procedures.
4. Hazardous Substance Incident Response Management Course - The 5 day course will provide key personnel with the knowledge to develop an activity hazardous substance (HS) incident response management plan (contingency plan) and to improve the response performance of the response team. The course provides "hands on" training to improve a managers awareness of the hazards involved in spill response as well as instruction in the safe and environmentally sound operations of initial response, control containment, and cleanup of hazardous substance spills in accordance with all applicable EPA and DoN guidelines. The curriculum of the course includes hazard recognition and evaluation; response organization and personal exposure guidelines; applicable legislation and regulations; response organization and responsibilities; technical assistance; organizations; monitoring instruments; use of personnel protective equipment including the use of air purifying respirators and self-contained breathing apparatus; standard operating safety guidelines; decontamination procedures; spill containment and control; sampling and cleanup techniques; contingency planning; and two simulated hazardous substance spill incidents.

Training can also be obtained through courses offered by the EPA, other DOD agencies, private consulting firms, educational institutions, and many other sources. For information regarding HW training courses in general, contact the Naval Facilities Engineering Command, Southern Division, Code 1812.

Training of the Hazardous Waste Coordinators is primarily accomplished by the Hazardous Waste Manager.

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8.4 TRAINING DIRECTORS

The Marine Corps' formal training courses will be conducted by hazardous waste specialists who have been pre-selected for extensive professional experience and education in environmental control. The Depot training director is the Hazardous Waste Manager.

8.5 RELEVANCE OF TRAINING TO JOB POSITION

MCRD, Parris Island personnel are instructed in the hazardous waste management procedures according to the duties of his or her job function.

8.6 TRAINING FOR EMERGENCY RESPONSE

The Natural Resources and Environmental Affairs Officer is the Marine Corps On-Scene Coordinator (MCOSC) and is primarily responsible for coordinating any emergency response. He/she is responsible for personally instructing other personnel (such as loading crews) in response to emergencies. Any person involved in Hazardous Material response operations must comply with OSHA's final rule (40 CFR 1910.120) that became effective March 6, 1990.

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9.0 RECORD KEEPING AND REPORTING

9.1 RECORD KEEPING

The following records must be maintained by the Hazardous Waste Manager for the time period indicated. The agency requiring the maintenance of these records is indicated in parenthesis.

9.1.1 Manifests: A copy of each manifest (with appropriate land disposal notification form, if applicable) that contains the acceptance signature of the owner or operator of the designated TSD facility must be kept for at least three years. These records will be maintained by Public Works.

9.1.2 Exception Reports: A copy of each written exception must be kept for at least three years. NREAO will maintain these records.

9.1.3 Training Records: Training records will include the following information:

1. The job title for each position at the Depot related to hazardous waste management and the name of the person filling each job.
2. A written job description for positions listed above.
3. A written description of the type and amount of both initial and continuing training that will be given to each person filling a position listed above.
4. Documentation that the training or job experience required has been given to, and completed by, persons listed above.

Training records for current personnel will be kept as permanent records. Training records on former personnel will be kept for at least three years from the date the personnel last worked at MCRD, Parris Island. Hazardous waste training records will be maintained by NREAO for all hazardous waste activity, including records for tenant commands.

9.1.4 Waste Analysis: Records of any test results, waste analysis, or other HW determinations made must be kept for three years from the date that the waste was last sent to the TSDF.

9.1.5 Land Ban Restricted Waste Documentation: All Depot generators must retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to land ban restricted wastes for at least five years from the date that a waste subject to such

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documentation was last sent to on-site or off-site treatment, storage, or disposal. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by state or EPA officials. For wastes which NREAO determined restriction requirements based solely on a working knowledge of the waste, all supporting data used to make this determination is included in this requirement.

9.1.6 OPNAV Hazardous Waste Annual Report: OPNAV 5090.1A requires that MCRD, Parris Island submit an annual report to NEESA of all hazardous waste activities during the previous year. Guidance on the preparation of this report is issued with the distribution of necessary forms, by NEESA, each fall.

9.1.7 Storage Records: All HW work center generation logs should be held for three years by the waste generators.

9.1.8 Inspection Records: Inspection records for the Hazardous Waste Storage Building (Bldg. 953) and the satellite accumulation areas should be kept by the NREAO for at least three years.

9.1.9 Quarterly Hazardous Waste Report: A copy of each quarterly hazardous waste report must be kept for at least three years. NREAO will maintain these records.

9.1.10 Incident Reports: A record of all hazardous waste incidents which require implementation of the contingency plan must be kept as a permanent record at MCRD, Parris Island. These records will include details of the incident and will be maintained by NREAO.

9.1.11 Contingency Plan: A copy of the Hazardous Material Spill Response (HMSR) document will be kept at each hazardous waste collection point. Additionally, copies of the HMSR sheet will be submitted to the Depot Security Officer, Safety Officer, Fire Chief, and Command Duty Officer.

9.2 REPORTING

The following reports must be prepared by the HW Manager when required:

9.2.1 Exception Report: An exception report must be submitted to South Carolina Department of Health and Environmental Control if a copy of the manifest with the handwritten signature of the owner or operator of the designated facility is not received

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within 45 days of the date the waste was accepted by the initial transporter. The exception report must include:

1. A legible copy of the manifest for which the generator does not have confirmation of delivery; and
2. A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the HW and the results of those efforts.

9.2.2 OPNAV HW Annual Report: This report is due by January 31 each year.

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10.0 CLOSURE AND POST-CLOSURE PLAN

This plan is in accordance with the requirements of 40 CFR 265.112(a) and R.61-79.265.112(a). This plan identifies all steps that will be necessary to partially close the facility at any point during its intended operational life and to completely close the facility at any point during its intended operating life. The plan also addresses the conditions and reasons under which partial closure will occur. A post-closure plan is not required for the Old Hazardous Waste Storage Building (Bldg. 895). Waste constituents will be removed at closure.

MCRD, Parris Island will maintain an on-site copy of the approved closure plan and all revisions to the plan until the certification of closure completeness has been submitted and accepted by the South Carolina Department of Health and Environmental Control. MCRD, Parris Island will notify the South Carolina Department of Health and Environmental Control within 180 days prior to the date final closure is expected to begin. The date for closure of the Hazardous Waste Storage Building (Bldg. 895) will be November 8, 1992.

This closure plan will:

1. Ensure that the Hazardous Waste Storage Building (Bldg. 895) will require no further maintenance and controls
2. Control, minimize, or eliminate threats to human health and the environment;
3. Avoid the escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, and waste decomposition products to the surface, groundwater or atmosphere.

The Hazardous Waste Storage Building (Bldg. 895) provides for containment of all internal spills or leaks, and the MCRD, Parris Island Contingency Plan requires the immediate removal of contaminated material in the event of a spill or leak during loading, unloading or transfer to the Hazardous Waste Storage Building (Bldg. 895). These preventive measures shall minimize the extent of decontamination at closure.

Partial and Final Closure Activities:

Closure of the Hazardous Waste Storage Building (Bldg. 895) is expected to occur November 8, 1992; however, it is the intention of MCRD, Parris Island to "clean-close" the Hazardous Waste Storage Building (Bldg. 895).

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Maximum Waste Inventory:

The maximum inventory of waste in storage at the Hazardous Waste Storage Building (Bldg. 895) at any time during the operating life of that facility will be 4930 gallons (equivalent to ninety 55-gallon drums).

Schedule For Closure:

Within 90 days after receipt of the final volume of hazardous waste, all hazardous waste will be removed from the Hazardous Waste Storage Building (Bldg. 895). The South Carolina Department of Health and Environmental Control's Chief of the Bureau of Solid and Hazardous Waste Management will be notified by MCRD, Parris Island 180 days before beginning final closure activities. Closure will be completed within 180 days after receiving the final volume of waste. Final closure will be supervised and certified by an independent South Carolina Registered Professional Engineer, in addition to the owner or operator. MCRD, Parris Island does not anticipate a need for an extension of closure time; therefore, no extension is requested.

Closure of the Hazardous Waste Storage Building (Bldg. 895):

The final inventory of wastes will be removed from the Hazardous Waste Storage Building (Bldg. 895) and transported to a commercial hazardous waste disposal facility. All drums will be handled in accordance with the South Carolina hazardous waste regulations. After the final inventory of wastes has been removed, the Natural Resources and Environmental Affairs Officer will inspect the Hazardous Waste Storage Building (Bldg. 895) and have all loose items (papers, pallets, empty containers) removed and packaged for disposal as hazardous waste. A South Carolina Registered Professional Engineer will certify that the building is ready for decontamination. Under the direction of the Natural Resources and Environmental Affairs Officer, trained and certified employees with rubber gloves, rubber boots, and protective coveralls will wash the floor of Hazardous Waste Storage Building 895 with water containing an ionic surfactant. All washings will be containerized in 85 gallon recovery drums and disposed of as hazardous waste. The rinse waters will be stored in 85 gallon recovery drums and sampled. Pending sampling results, the final rinse waters will be stored at a secure and environmentally acceptable location designated by NREAO. The drums containing the rinse water will be managed in accordance with the hazardous waste management regulations. The final rinse

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waters will be sampled and analyzed for all hazardous constituents stored previously at the Hazardous Waste Storage Building (Bldg. 895).

The rinse water will be sampled and analyzed for TCLP, Ignitability (EPA Test Methods 1010), Corrosivity (EPA Test Method 9040), Reactivity (Cyanides - EPA Test Method 9010, Sulfides - EPA Test Method 9030), F001 - F005 Listed Wastes (EPA Test Method 8240), PCBs (EPA Test Method 8080) and Beryllium (ICP Method 610).

In addition, the analysis will include Halogenated Volatiles (EPA Test Method 8010), Aromatic Volatiles (EPA Test Method 8020) and Non-Halogenated Volatiles (EPA Test Method 8014). The completed analytical results of the rinse water will be compared to the background sample (uncontaminated rinse water). If the comparison of results between the final rinse water and the background sample are statistically insignificant, the rinse water will be discharged into MCRD, Parris Island's wastewater treatment facility. Prior to disposal of the final rinse water into the wastewater treatment facility, written permission will be obtained from the South Carolina Department of Health and Environmental Control's NPDES Permit Administration Section and the Bureau of Solid and Hazardous Waste Management. Also, written permission will be obtained from the MCRD, Parris Island wastewater treatment plant.

Soils within twenty (20) feet of the Hazardous Waste Storage Building (Bldg. 895) will be sampled using a random grid method. The area will be divided into fifteen (15) grids. Five (5) samples of the top six (6) inches of soil will be collected within each grid and composited to form one sample. A background sample will be taken within one half mile from the Hazardous Waste Storage Building (Bldg. 895) in an area known not to be impacted by hazardous waste. Each of the fifteen (15) resulting composite samples and the background sample will be analyzed for EP Toxicity (EPA Test Method 1310), Ignitability (EPA Test Method 1010), Corrosivity (EPA Test Method 9040), Reactivity (Cyanides - EPA Test Method 9010 and Sulfides - EPA Test Method 9030), F001-F005 Listed Wastes (EPA Test Method 8240), PCBs (EPA Test Method 8080) and Beryllium (ICP Method 6010). In addition, the analysis will include Halogenated Volatiles (EPA Test Method 8010), Aromatic Volatiles (EPA Test Method 8020) and Non-Halogenated Volatiles (EPA Test Method 8015). The criteria for judging whether soils are contaminated will be comparing analytical results of the background sample to analytical results of the soils around the Hazardous Waste Storage Building (Bldg.

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895). If the statistical comparison of results between the background sample and the Hazardous Waste Storage Building (Bldg. 895) show contamination, further sampling and analysis will be conducted to determine the aerial extent of contamination both horizontally and vertically. Interpretation of results will be coordinated with the Bureau of Solid and Hazardous Waste Management. All contaminated soils will be disposed of in accordance with the South Carolina Hazardous Waste Management Regulations.

Following soil removal, no less than five (5) samples will be collected from the area from which soils were removed to verify successful removal. Soils will be removed until this verification is successful. The area from which soils will be removed will be restored using uncontaminated top-soil and appropriate vegetative cover will be established.

Disposable equipment will be used in the decontamination process to eliminate the need for decontamination of equipment, personal protective clothing, sampling equipment, etc. Everything used in all aspects of the decontamination procedure will be packaged in eighty-five (85) gallon drums and disposed of as hazardous waste.

Once the decontamination process for the Hazardous Waste Storage Building is completed, the Natural Resources and Environmental Affairs Officer will certify the results of all tests and a independent South Carolina Professional Engineer will visually inspect the Hazardous Waste Storage Building (Bldg. 895), review the test results and, if all criteria described above are met, certify closure of the Hazardous Waste Storage Building (Bldg. 895).

Post Closure Plans:

Post closure plans are not required for a storage facility.

Notices Required For Disposal Facilities:

Notices in deeds are not required for storage facilities.

Closure Cost Estimate:

40 CFR 264.140(c) exempts the Federal Government from the financial requirements (Subpart H) of the hazardous waste regulations. MCRD, Parris Island is owned and operated by the Federal Government.

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Financial Assurance Mechanism For Closure:

40 CFR 264.140(c) exempts the Federal Government from the financial requirements (Subpart H) of the hazardous waste regulations. MCRD, Parris Island is owned and operated by the Federal Government.

Post Closure Cost Estimate:

40 CFR 264.140(c) exempts the Federal Government from the financial requirements (Subpart H) of the hazardous waste regulations. MCRD, Parris Island is owned and operated by the Federal Government.

Financial Assurance Mechanism For Post Closure:

40 CFR 264.140(c) exempts the Federal Government from the financial requirements (Subpart H) of the hazardous waste regulations. MCRD, Parris Island is owned and operated by the Federal Government.

Liability Insurance:

40 CFR 264.140(c) exempts the Federal Government from the financial requirements (Subpart H) of the hazardous waste regulations. MCRD, Parris Island is owned and operated by the Federal Government.

State Assumption Of Responsibility:

40 CFR 264.140(c) exempts the Federal Government from the financial requirements (Subpart H) of the hazardous waste regulations. MCRD, Parris Island is owned and operated by the Federal Government.

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